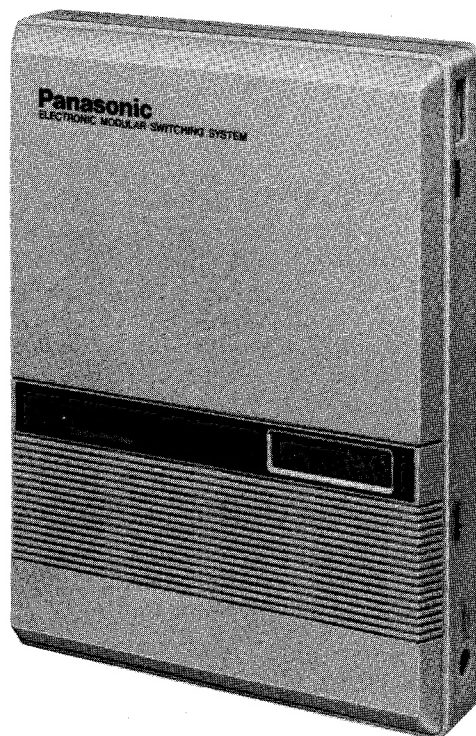


# Service Manual

EASA-PHONE

ELECTRONIC MODULAR SWITCHING SYSTEM

KX-T61610-1



SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

NAME AND LOCATION\НАИМЕНОВАНИЕ И РАСПОЛОЖЕНИЕ

CONNECTION\СОЕДИНЕНИЯ

PROGRAMMING\ПРОГРАММИРОВАНИЕ

IC I/O DATA\ИНФОРМАЦИЯ О МИКРОСХЕМАХ ВВОДА/ВЫВОДА

BLOCK DIAGRAM\БЛОК - СХЕМА

TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES\ЦОКОЛЕВКА ИНТЕГРАЛЬНЫХ СХЕМ,  
ТРАНЗИСТОРОВ И ДИОДОВ

SCHEMATIC DIAGRAM\ПРИНЦИПИАЛЬНЫЕ СХЕМЫ

WIRING CONNECTION DIAGRAM\СХЕМА СОЕДИНЕНИЙ

IC BLOCK DIAGRAM\БЛОК - СХЕМЫ ИНТЕГРАЛЬНЫХ СХЕМ

EXTENSION CORD CONNECTING METHOD\ПОДСОЕДИНЕНИЕ СЕРВИСНЫХ КАБЕЛЕЙ

ADJUSTMENTS\РЕГУЛИРОВКИ

EXPLODED VIEW\СБОРОЧНЫЙ ЧЕРТЕЖ

ACCESSORIES AND PACKING MATERIALS\ПРИНАДЛЕЖНОСТИ И УПАКОВОЧНЫЕ МАТЕРИАЛЫ

REPLACEMENT PARTS LIST\СПИСОК ЗАПАСНЫХ ЧАСТЕЙ

# Panasonic

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# SPECIFICATIONS

## General Description

|                       |   |   |
|-----------------------|---|---|
| 1. Capacity           | Outsides (CO)   | 6   |
|                       | Stations  | 16  |
| 2. Control Method     | Stored Program CPU: 8 bits CPU, 4 bits CPU<br>Control ROM: 64 KB, Control RAM: 16 KB  |   |
| 3. Switching          | Space Division CMOS Crosspoint Switch   |   |
| 4. Power Supplies     | Primary   | AC 120 V 60 Hz  |
|                       | Secondary   | Station Supply Volt: -24 V,<br>Circuit Volt: +5 V, $\pm 13.4$ V, -24 V, -18 V                                     |
|                       | Power Failure • 6 outsiders assigned to stations (1 through 6) ... power failure transfer<br>• System operation for 4 hours by optional Backup Adaptor. |   |
| 5. Dialing            | Outward   | Dial Pulse 10PPS<br>Tone Dial   |
|                       | Internal  | Dial Pulse 10PPS, 20PPS<br>Tone Dial  |
|                       | Mode Conversion   | DP-DTMF, DTMF-DP  |
| 6. Intercom paths     | 4   |   |
| 7. Connector          | Outsides (CO)   | Modular Jack (RJ-11)  |
|                       | Station   | Modular Jack  |
|                       | Paging Output   | Pin Jack (RCA JACK)   |
|                       | External Music Input  | two-conductors Jack (MINI JACK $\frac{1}{8}$ inch diameter)   |
| 8. EXT Connection     | Cable   | 1 pair wire (Standard Telephone)<br>2 pair wire (KX-T61630/KX-T61620/KX-T61650/<br>KX-T30830/KX-T30820/KX-T30850) |
| 9. SMDR               | Interface   | RS-232C   |
| (Station Message)     | Output Equipment  | Printer, Data Terminal  |
| (Detail Recording)    | Detail Recording  | Date, Time, Ext. Number, CO Number,<br>Calling Number, Calling Time, Account Code                                 |
| 10. Dimensions        | 334 (W) $\times$ 437 (H) $\times$ 107 (D) mm<br>(13 $\frac{1}{32}$ " $\times$ 17 $\frac{7}{32}$ " $\times$ 4 $\frac{7}{32}$ " )                         |   |
| 11. Weight            | 7.2 kg (15 lb 14 oz)  |   |
| 12. Power Consumption | 40 W (Max.)   |   |

## Characteristics

|   |  |                        |
|---|--|------------------------|
| 1. Station Loop Limit                             | KX-T61630/KX-T61620/KX-T61650/<br>KX-T30830/KX-T30820/KX-T30850                                      | 40 ohms                |
|   | Standard Telephone   | 600 ohms including set |
|   | Doorphone  | 20 ohms                |
| 2. Minimum Leak Resistance                        | 15,000 ohms  |                        |
| 3. Maximum Number of Station Instruments per Line | 1 (KX-T61630, KX-T61620, KX-T61650, KX-T30830, KX-T30820 or KX-T30850)<br>or<br>6 sets/Ringing group |                        |
| 4. Ring Voltage                                   | 90 Vrms at 20 Hz depends on Ringing Load   |                        |
| 5. Primary Power                                  | 120 Vac, 60 Hz, 0.4 A maximum  |                        |
| 6. Central Office Loop Limit                      | 1600 ohms maximum  |                        |
| 7. Environmental Requirements                     | 0-40°C, 10%-90%  |                        |
| 8. Hookswitch Flash Timing Range                  | 204-1000 msec  |                        |

|                          |     |     |     |    |
|--------------------------|-----|-----|-----|----|
| Ringing group (4 groups) |     |     |     |    |
| Ext.                     | 11, | 15, | 19, | 23 |
| Ext.                     | 12, | 16, | 20, | 24 |
| Ext.                     | 13, | 17, | 21, | 25 |
| Ext.                     | 14, | 18, | 22, | 26 |

Design and specifications are subject to change without notice.

## NAME AND LOCATION

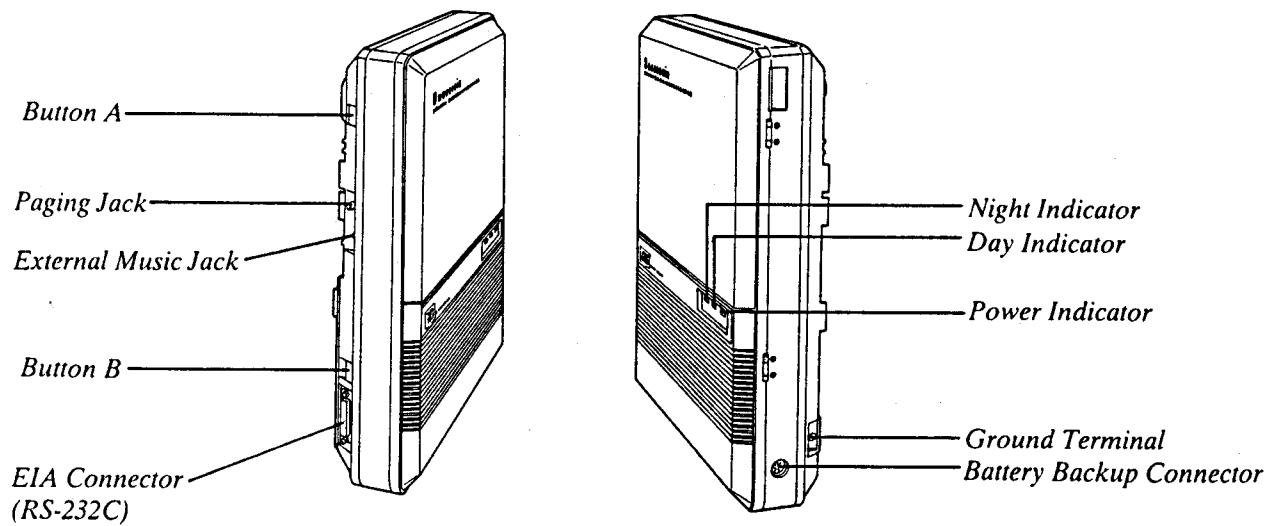


Fig. 3

*Push Buttons A and B simultaneously to open Front Cover.*

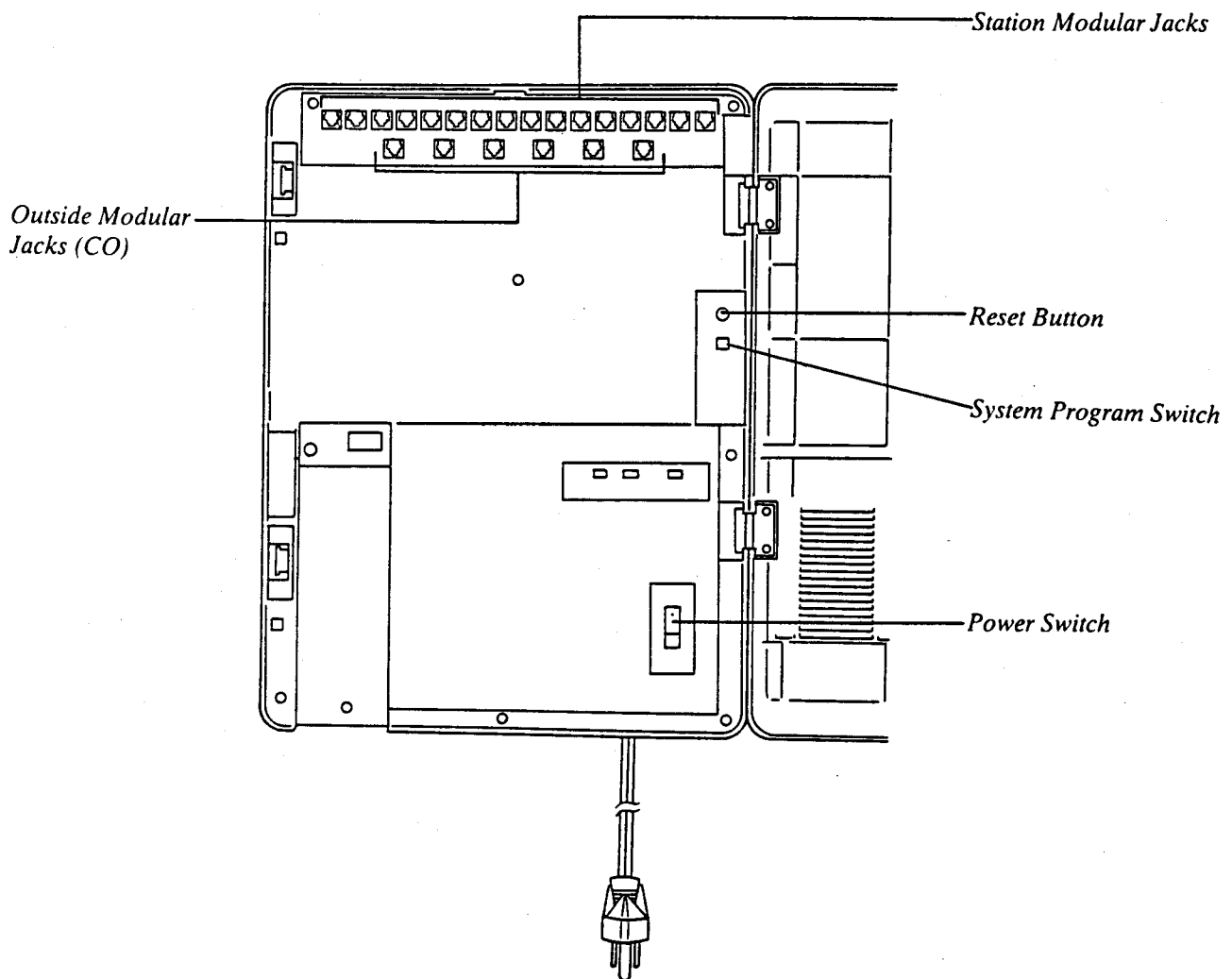


Fig. 4

# CONNECTION

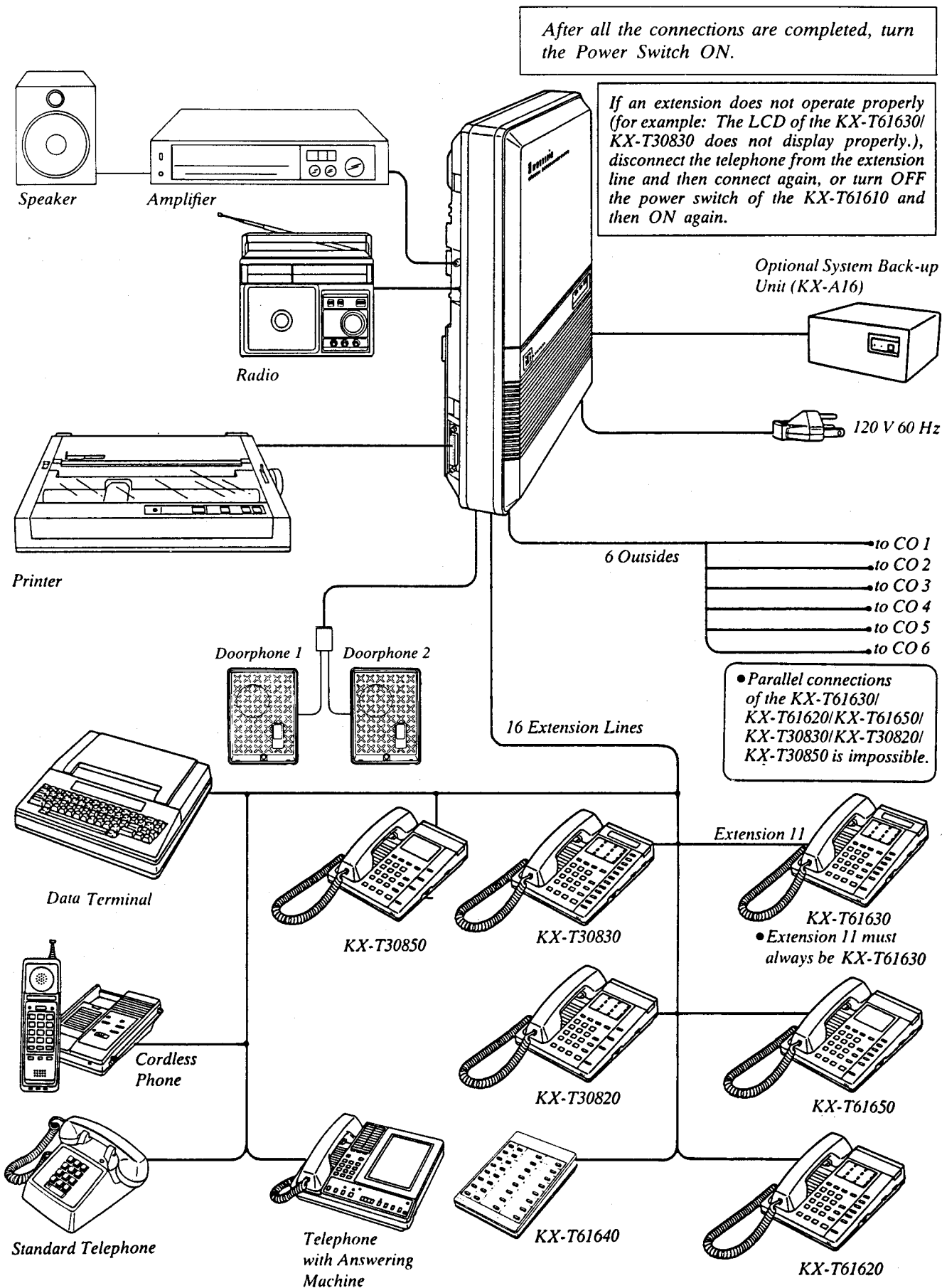


Fig. 5

# PROGRAMMING

## Programming Instructions

### 1. At extension 11:

All system programming changes (example: system clear, station program clear, toll restriction, hookswitch flash timing...) are done through extension 11.

• **Extension 11 must always be a Panasonic model, KX-T61630.**

### 2. System Program Switch setting:

The System Program Switch located on the KX-T61610 must be set to the PROGRAM position while making program changes. After all programming changes are completed, return the program switch to the SET position.

### 3. Overlay:

This overlay is used for programming the system and the program function names are inscribed on this card.

### 4. Before system programming, operate the system clear and station program clear to set to the default data of the programming.

#### A. System Clear:

##### 1 Dial (99).

• "SYSTEM CLEAR" will be displayed.

##### 2 Press the NEXT button.

• "ALL CLEAR?" will be displayed.

##### 3 Press the MEMORY button to clear system.

##### 4 To exit from system clear, press the END button.

The following features are preset as the default data.

Date and Time Setting

System Speed Dialing

CO Connection Assignment

Dial Mode (Tone/Pulse) Selection

Switching Mode (Day/Night Service)

Starting Time (Day/Night Service)

Flexible Day Outward Dialing Assignment

Flexible Night Outward Dialing Assignment

Flexible Day Ringing Assignment

Flexible Night Ringing Assignment

Toll Restriction—Class Assignment

Toll Restriction—Area Code Selection

Programmable Operator Call

Host PBX Access Codes Assignment

Automatic Answering (Automatic/Manual)  
Selection

Preferred CO Line Assignment

Programmable Call Waiting

Duration Time Count Start Mode

SMDR Communication Parameters

System Data Dump

SMDR Incoming/Outgoing Selection

Hookswitch Flash Timing

Disconnect Time

Calling Party Control (CPC) Signal

Intercom Alerting Mode

Programmable Doorphone

Dial Call Pickup Group Assignment

Account Code Input Mode

Delayed Ringing Assignment

Delayed Ringing Count Selection

DSS Console Assignment

Hold Time Reminder

Hold Recall Time Set

Programmable External Paging Access Tone

DTMF Receiver

Programmable Toll Prefix

Programmable Secret Speed Dial

Programmable Directory Assistance

DSS Button Mode

Transfer Recall Time

M3/FWD Selection

#### B. Station Program Clear:

##### 1 Dial (98).

• "EXT CLEAR" will be displayed.

##### 2 Press the NEXT button.

• "ALL CLEAR?" will be displayed.

##### 3 Press the MEMORY button to clear the system.

##### 4 To exit from station clear, press the END button.

The following features are preset as the default data.

One Touch Dialing

Background Music

Call Forwarding

Data Line Security

Dial Call Pickup Deny

Do not Disturb

Auto CO Hunting

Pickup dial

Flexible CO Button

Flexible DSS Button

## Example of Programming

1. Turn the Power Switch to ON .....

2. Set the System Program Switch to PROGRAM .....  
The LCD on the KX-T61630 will show "ENTER PGM CODE".

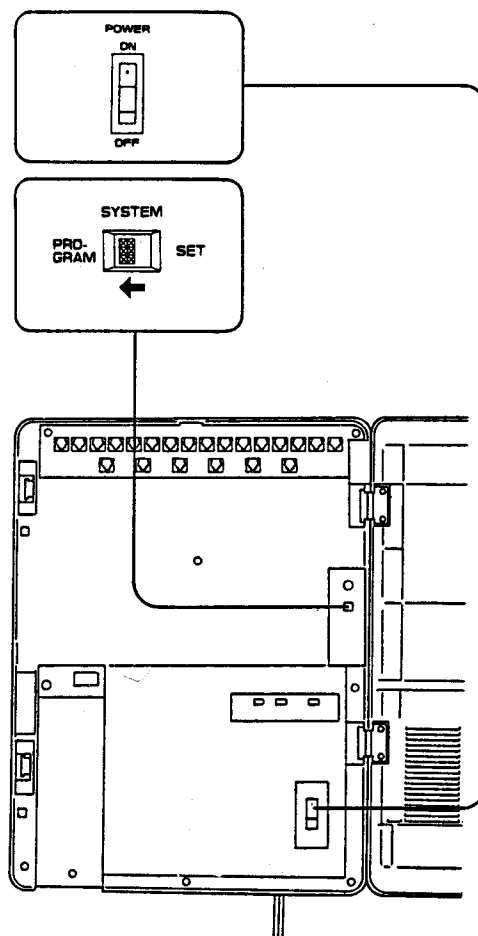
- Be sure the handset of extension 11 is in the cradle and the speakerphone button off.

3. To program automatic line access number 9 and the phone number 987-654-3210 speed access code 00.

| KX-T61630 at extension 11<br>(Extension 11 must be a KX-T61630.) |  |   |
|--|--|---|
| 1.   | Dial (01) or press the AUTO button.  | Display<br><b>SPEED DIALING</b>   |
| 2.   | Press the NEXT button.   | <b>ENTER SPEED CODE</b>   |
| 3.   | Dial (00) or press the NEXT button.  | <ul style="list-style-type: none"> <li>• If nothing is stored in access code "00",<br/><b>00: NOT STORED</b></li> <li>• If already stored the automatic line access number 9 and the phone number 123-456-7890,<br/><b>00: -123-456-7890</b></li> </ul> |
| 4.   | ① Dial "9".<br>② Press "-" button.<br>③ Dial "987".<br>④ Press "-" button.<br>⑤ Dial "654".<br>⑥ Press "-" button.<br>⑦ Dial "3210".   | <b>00: -987-654-3210</b>  |
| 5.   | Press the MEMORY button.   | <b>00: -987-654-3210</b>  |
| 6.   | <ul style="list-style-type: none"> <li>• To program the next access code, press the NEXT button.</li> <li>• To program a desired access code, press the SELECT button and then dial the number.</li> </ul> |   |
| 7.   | Repeat step 4 to 6.  |   |
| 8.   | To return to the initial program mode, press the END button.   | <b>ENTER PGM CODE</b>   |

4. Return the System Program Switch to SET

- To make program change, start from the beginning.



While programming if a mistake is made,

1. Press the "END" button.
2. Start programming procedure from the beginning.

- You will hear a beep after pressing the MEMORY button.
- The MEMORY indicator light will go on when the MEMORY button is pressed, and then the Indicator light will go out when the NEXT or PREV button is pressed.

## ■ PROGRAMMING TABLE

| TO SET                | PROGRAM ADDRESS | STEPS REQUIRED TO CHANGE PROGRAM   |
|-----------------------|-----------------|--|
| Date and Time Setting | [00]            | [NEXT] [A] [↔] [SELECT] [↔] [B] [↔] [SELECT] [↔] [C] [↔] [D] [↔] [SELECT] [MEMORY] [END]<br> |

| TO SET                                     | PROGRAM ADDRESS | STEPS REQUIRED TO CHANGE PROGRAM   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|-----------------|--|----|---------|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|------------|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Flexible Day Outward Dialing Assignment    | [07]            | <div><div><div>(NEXT) (NEXT) (C...E) (MEMORY) (END)</div><div>CO number</div><div>until the desired extension number appears</div></div><table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 4</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 5</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 6</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div> |    | Default | To make program change |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | CO 1                | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 2                              | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 3                                       | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 4                  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 5 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 6 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default         | To make program change   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                 | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 1                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 2                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 3                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 4                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 5                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 6                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flexible Night Outward Dialing Assignment  | [08]            | <div><div><div>(NEXT) (NEXT) (C...E) (MEMORY) (END)</div><div>CO number</div><div>until the desired extension number appears</div></div><table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 4</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 5</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 6</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div> |    | Default | To make program change |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | CO 1                | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 2                              | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 3                                       | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 4                  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 5 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 6 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default         | To make program change   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                 | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 1                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 2                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 3                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 4                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 5                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 6                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flexible Day Ringing Assignment            | [09]            | <div><div><div>(NEXT) (NEXT) (C...E) (MEMORY) (END)</div><div>CO number</div><div>until the desired extension number appears</div></div><table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 4</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 5</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 6</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div> |    | Default | To make program change |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | CO 1                | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 2                              | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 3                                       | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 4                  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 5 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 6 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default         | To make program change   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                 | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 1                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 2                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 3                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 4                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 5                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 6                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flexible Night Ringing Assignment          | [10]            | <div><div><div>(NEXT) (NEXT) (C...E) (MEMORY) (END)</div><div>CO number</div><div>until the desired extension number appears</div></div><table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 4</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 5</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 6</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div> |    | Default | To make program change |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | CO 1                | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 2                              | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 3                                       | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 4                  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 5 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CO 6 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default         | To make program change   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                 | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 1                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 2                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 3                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 4                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 5                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO 6                                       | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Toll Restriction—Class Assignment          | [11]            | <div><div><div>(NEXT) (NEXT) (SELECT) (MEMORY) (END)</div><div>CLASS 1/2/3/4</div><div>until the desired extension number appears</div></div><table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>Class 1 (all calls)</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 2 (toll calls, local calls)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 3 (selected area-codes, local calls)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 4 (local calls)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div>  |    | Default | To make program change |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Class 1 (all calls) | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Class 2 (toll calls, local calls) |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Class 3 (selected area-codes, local calls) |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Class 4 (local calls) |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default         | To make program change   |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                 | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Class 1 (all calls)                        | x               |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Class 2 (toll calls, local calls)          |                 |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Class 3 (selected area-codes, local calls) |                 |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Class 4 (local calls)                      |                 |  |    |         |                        |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                                   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



| TO SET   | PROGRAM ADDRESS                      | STEPS REQUIRED TO CHANGE PROGRAM   |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--------------------------------------|--|----|--------------------------------------|------------------------|-------------|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|------------|----------------|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Toll Restriction—Area Code Selection             | [12]                                 | <div><div>[SELECT]</div><div>[NEXT] [AB] [C] [MEMORY] [END]</div><div>----- area code with 3 digits</div><div>----- Memory location number</div></div> <table><tr><th></th><th colspan="10">Memory location number</th></tr><tr><th></th><th>00</th><th>01</th><th>02</th><th>03</th><th>04</th><th>05</th><th>06</th><th>07</th><th>08</th><th>09</th></tr><tr><td>Area code entry</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>  |    | Memory location number               |                        |             |    |    |           |    |    |    |    |    | 00 | 01 | 02 | 03 | 04 | 05 | 06         | 07             | 08 | 09 | Area code entry |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Memory location number               |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 00                                   | 01   | 02 | 03                                   | 04                     | 05          | 06 | 07 | 08        | 09 |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Area code entry                                  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Programmable Toll Prefix                         | [13]                                 | <div><div>[NEXT] [SELECT] [MEMORY] [END]</div><div>----- WITH 1/ WITHOUT 1</div></div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>With 1</td><td>x</td><td></td></tr><tr><td>Without 1</td><td></td><td></td></tr></table>  |    | Default                              | To make program change | With 1      | x  |    | Without 1 |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default                              | To make program change   |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| With 1   | x                                    |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Without 1  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Programmable Operator Call                       | [14]                                 | <div><div>[NEXT] [NEXT] [SELECT] [MEMORY] [END]</div><div>----- ENABLE/DISABLE</div><div>----- until the desired extension number appears</div></div> <table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>Enable</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Disable</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>           |    | Default                              | To make program change |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    | Extensions | all extensions | 11 | 12 | 13              | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Enable    | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Disable |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default                              | To make program change   |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                       | all extensions                       | 11   | 12 | 13                                   | 14                     | 15          | 16 | 17 | 18        | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Enable   | x                                    |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Disable  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Programmable Directory Assistance                | [15]                                 | <div><div>[NEXT] [SELECT] [MEMORY] [END]</div><div>----- NO RESTRICT/RESTRICT</div></div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>No restrict</td><td>x</td><td></td></tr><tr><td>Restrict</td><td></td><td></td></tr></table>   |    | Default                              | To make program change | No restrict | x  |    | Restrict  |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default                              | To make program change   |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No restrict                                      | x                                    |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Restrict   |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automatic Answering (Automatic/Manual) Selection | [16]                                 | <div><div>[NEXT] [NEXT] [SELECT] [MEMORY] [END]</div><div>----- AUTO ANSWER/MAN ANSWER</div><div>----- until the desired extension number appears</div></div> <table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>Automatic</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Manual</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> |    | Default                              | To make program change |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    | Extensions | all extensions | 11 | 12 | 13              | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Automatic | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Manual  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Default                              | To make program change   |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                                       | all extensions                       | 11   | 12 | 13                                   | 14                     | 15          | 16 | 17 | 18        | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automatic  | x                                    |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Manual   |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Host PBX Access Codes Assignment                 | [17]                                 | <div><div>[NEXT] [NEXT] [A...D] [MEMORY] [END]</div><div>----- up to four outside access codes each with a maximum of 2 digits</div><div>----- until the desired CO numbers appears</div></div> <table><tr><th>CO</th><th colspan="4">Outside access codes of the host PBX</th></tr><tr><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td></tr></table>   | CO | Outside access codes of the host PBX |                        |             |    | 1  |           |    |    |    | 2  |    |    |    |    | 3  |    |    |            |                | 4  |    |                 |    |    | 5  |    |    |    |    | 6  |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO   | Outside access codes of the host PBX |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6  |                                      |  |    |                                      |                        |             |    |    |           |    |    |    |    |    |    |    |    |    |    |    |            |                |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]

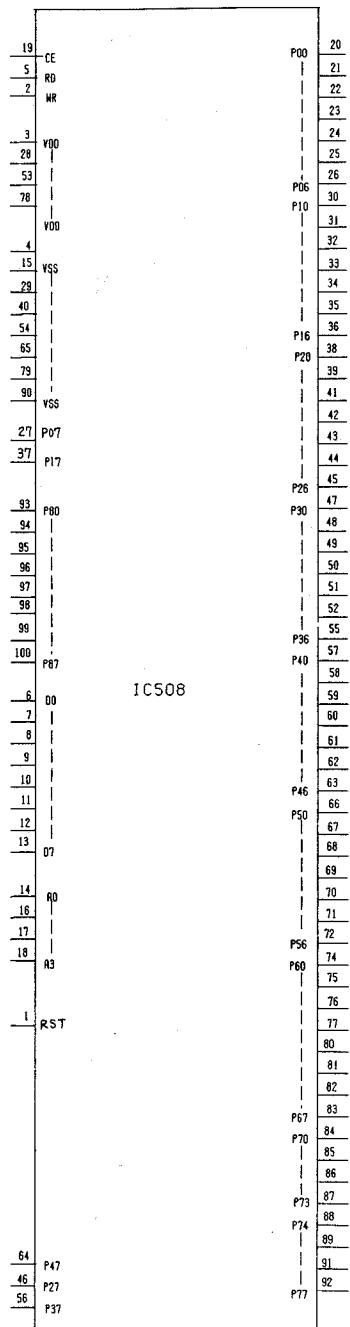
| TO SET                            | PROGRAM ADDRESS | STEPS REQUIRED TO CHANGE PROGRAM  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-----------------|---|-------|---------|------------------------|-----------|-------|-------|---------------|----|----|----------------|------|------|------|------|-------|-------|-------|-------|------------|----------------|----|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----------------|---------|------------------------|--------|---|--|--------|--|--|--|------|------|-------|------|-----|---------|--|---|----------------|--|--|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Dial Call Pickup Group Assignment | [24]            | <div><div>[NEXT] [NEXT] [A...D] [MEMORY] [END]</div><div>----- dial the pickup group number</div><div>---- until the desired extension number appears</div></div> <table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>Pickup Group 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pickup Group 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pickup Group 3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pickup Group 4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>   |       | Default | To make program change |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18                     | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Pickup Group 1 | x       |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   | Pickup Group 2 |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Pickup Group 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Pickup Group 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | Default         | To make program change  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                        | all extensions  | 11  | 12    | 13      | 14                     | 15        | 16    | 17    | 18            | 19 | 20 | 21             | 22   | 23   | 24   | 25   | 26    |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pickup Group 1                    | x               |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pickup Group 2                    |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pickup Group 3                    |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pickup Group 4                    |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Account Code Input Mode           | [25]            | <div><div>[NEXT] [NEXT] [SELECT] [MEMORY] [END]</div><div>----- OPTION/FORCED</div><div>---- until the desired extension number appears</div></div> <table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th></tr><tr><td>Option</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Forced</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>   |       | Default | To make program change |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18                     | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Option         | x       |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   | Forced         |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | Default         | To make program change  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions                        | all extensions  | 11  | 12    | 13      | 14                     | 15        | 16    | 17    | 18            | 19 | 20 | 21             | 22   | 23   | 24   | 25   | 26    |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Option                            | x               |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forced                            |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Duration Time Count Start Mode    | [26]            | <div><div>[NEXT] [SELECT] [MEMORY] [END]</div><div>---- INSTANTLY/5S AFTER DIAL/10S AFTER DIAL</div></div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>Instantly</td><td></td><td></td></tr><tr><td>5S after dial</td><td>x</td><td></td></tr><tr><td>10S after dial</td><td></td><td></td></tr></table>  |       | Default | To make program change | Instantly |       |       | 5S after dial | x  |    | 10S after dial |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | Default         | To make program change  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Instantly                         |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5S after dial                     | x               |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10S after dial                    |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMDR Communication Parameters     | [27]            | <div>(Carriage return for a new line)</div> <div><div>[NEXT][SELECT][MEMORY]</div><div>---- CR+LF/CR</div></div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>CR+LF</td><td>x</td><td></td></tr><tr><td>CR</td><td></td><td></td></tr></table> <div>(Baud rate)</div> <div><div>[NEXT][SELECT][MEMORY]</div><div>---- 110B/150B/300B/600B/1200B/2400B/4800B/9600B</div></div> <table><tr><th></th><th>110B</th><th>150B</th><th>300B</th><th>600B</th><th>1200B</th><th>2400B</th><th>4800B</th><th>9600B</th></tr><tr><td>Default</td><td></td><td></td><td></td><td></td><td>x</td><td></td><td></td><td></td></tr><tr><td>To make program change</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> <div>(Word length)</div> <div><div>[NEXT][SELECT][MEMORY]</div><div>---- 7 BITS/8 BITS</div></div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>7 BITS</td><td>x</td><td></td></tr><tr><td>8 BITS</td><td></td><td></td></tr></table> <div>(Parity)</div> <div><div>[NEXT][SELECT][MEMORY]</div><div>---- NONE/MARK/SPACE/EVEN/ODD</div></div> <table><tr><th></th><th>None</th><th>Mark</th><th>Space</th><th>Even</th><th>Odd</th></tr><tr><td>Default</td><td></td><td>x</td><td></td><td></td><td></td></tr><tr><td>To make program change</td><td></td><td></td><td></td><td></td><td></td></tr></table> |       | Default | To make program change | CR+LF     | x     |       | CR            |    |    |                | 110B | 150B | 300B | 600B | 1200B | 2400B | 4800B | 9600B | Default    |                |    |    |    | x  |    |    |    | To make program change |    |    |    |    |    |    |    |    |                | Default | To make program change | 7 BITS | x |  | 8 BITS |  |  |  | None | Mark | Space | Even | Odd | Default |  | x |                |  |  | To make program change |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | Default         | To make program change  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CR+LF                             | x               |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CR                                |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | 110B            | 150B  | 300B  | 600B    | 1200B                  | 2400B     | 4800B | 9600B |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Default                           |                 |   |       |         | x                      |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To make program change            |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | Default         | To make program change  |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 BITS                            | x               |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 BITS                            |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   | None            | Mark  | Space | Even    | Odd                    |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Default                           |                 | x   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To make program change            |                 |   |       |         |                        |           |       |       |               |    |    |                |      |      |      |      |       |       |       |       |            |                |    |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |                |         |                        |        |   |  |        |  |  |  |      |      |       |      |     |         |  |   |                |  |  |                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| TO SET                               | PROGRAM ADDRESS | STEPS REQUIRED TO CHANGE PROGRAM  |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
|--------------------------------------|-----------------|---|----------|----------|------------------------|----------|---|--|--------|-----|----|-----|---------|------------------------|----------------|----|--|------------------------|---------|------------------------|----------------|---|--|
| SMDR<br>Communication<br>Parameters  |                 | <p>(Stop bit length)<br/>[NEXT][SELECT][MEMORY]<br/>└----- 1 BIT/2 BITS</p> <table><tr><td></td><td>Default</td><td>To make program change</td></tr><tr><td>1 BIT</td><td>x</td><td></td></tr><tr><td>2 BITS</td><td></td><td></td></tr></table> <p>(Page length)<br/>[NEXT][AB][MEMORY]<br/>└----- 4 through 99 lines</p> <table><tr><td></td><td>Default</td><td>To make program change</td></tr><tr><td>Lines per page</td><td>66</td><td></td></tr></table> <p>(Skip perforation)<br/>[NEXT][AB][MEMORY][END]<br/>└----- 0 through 95 lines</p> <table><tr><td></td><td>Default</td><td>To make program change</td></tr><tr><td>Skipping lines</td><td>0</td><td></td></tr></table> |          | Default  | To make program change | 1 BIT    | x |  | 2 BITS |     |    |     | Default | To make program change | Lines per page | 66 |  |                        | Default | To make program change | Skipping lines | 0 |  |
|                                      | Default         | To make program change  |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| 1 BIT                                | x               |   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| 2 BITS                               |                 |   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
|                                      | Default         | To make program change  |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| Lines per page                       | 66              |   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
|                                      | Default         | To make program change  |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| Skipping lines                       | 0               |   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| System Data<br>Dump                  | [28]            | <p>•SYSTEM PARA<br/>•SPEED DIAL<br/>•ALL PARA<br/>•STOP OUTPUT</p> <p>[NEXT][SELECT][MEMORY][END]<br/>└----- SYSTEM PARA/CO PARA/EXT PARA/SPEED DIAL<br/>ALL PARA/STOP OUTPUT</p> <p>•CO PARA<br/>[NEXT][SELECT][MEMORY][A][END]<br/>└----- dial CO number<br/>└----- until the CO PARA appears</p> <p>•EXT PARA<br/>[NEXT][SELECT][MEMORY][AB][END]<br/>└----- dial extension number<br/>└----- until the EXT PARA appears</p>   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| SMDR Incoming/<br>Outgoing Selection | [29]            | <p>[NEXT][SELECT][MEMORY][NEXT][SELECT][MEMORY][END]<br/>└----- OUTGOING: ON/OFF └----- INCOMING: ON/OFF</p> <table><tr><td></td><td colspan="2">Outgoing</td><td colspan="2">Incoming</td></tr><tr><td></td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr><tr><td>Default</td><td>x</td><td></td><td>x</td><td></td></tr><tr><td>To make program change</td><td></td><td></td><td></td><td></td></tr></table>   |          | Outgoing |                        | Incoming |   |  | ON     | OFF | ON | OFF | Default | x                      |                | x  |  | To make program change |         |                        |                |   |  |
|                                      | Outgoing        |   | Incoming |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
|                                      | ON              | OFF   | ON       | OFF      |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| Default                              | x               |   | x        |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |
| To make program change               |                 |   |          |          |                        |          |   |  |        |     |    |     |         |                        |                |    |  |                        |         |                        |                |   |  |

[illegible]

| TO SET                | PROGRAM ADDRESS | STEPS REQUIRED TO CHANGE PROGRAM   |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|-----------------|--|----|---------|------------------------|----|------------------|------|----|----|---------------|----|----|----|---------|----|----|--|--|--|------------|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DSS Button Mode       | [37]            | <div>[NEXT] [SELECT] [MEMORY] [END]</div> <div>----- WITHOUT TRANSFER/WITH TRANSFER</div> <table><tr><th></th><th>Default</th><th colspan="2">To make program change</th></tr><tr><td>Without transfer</td><td>x</td><td></td><td></td></tr><tr><td>With transfer</td><td></td><td></td><td></td></tr></table>   |    | Default | To make program change |    | Without transfer | x    |    |    | With transfer |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Default         | To make program change   |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Without transfer      | x               |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| With transfer         |                 |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DTMF Receiver Check   | [38]            | <div>[NEXT] [SELECT] [MEMORY] [END]</div> <div>----- ENABLE/DISABLE</div> <div>--- until the desired DTMF receiver appears</div> <table><tr><th></th><th>Default</th><th colspan="2">To make program change</th></tr><tr><td>DTMF receiver</td><td>1, 2</td><td>1</td><td>2</td></tr><tr><td>Enable</td><td>x</td><td></td><td></td></tr><tr><td>Disable</td><td></td><td></td><td></td></tr></table>  |    | Default | To make program change |    | DTMF receiver    | 1, 2 | 1  | 2  | Enable        | x  |    |    | Disable |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Default         | To make program change   |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DTMF receiver         | 1, 2            | 1  | 2  |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Enable                | x               |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Disable               |                 |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transfer Recall Time  | [39]            | <div>[NEXT] [SELECT] [MEMORY] [END]</div> <div>----- 30 SEC/15 SEC</div> <table><tr><th></th><th>Default</th><th colspan="2">To make program change</th></tr><tr><td>30 sec</td><td>x</td><td></td><td></td></tr><tr><td>15 sec</td><td></td><td></td><td></td></tr></table>   |    | Default | To make program change |    | 30 sec           | x    |    |    | 15 sec        |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Default         | To make program change   |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 sec                | x               |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 sec                |                 |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M3/FWD Selection      | [40]            | <div>[NEXT] [NEXT] [SELECT] [MEMORY] [END]</div> <div>----- FEATURE KEY/FWD, DND KEY</div> <div>--- until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="16">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr><tr><td>Feature key</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>FWD/DND key</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> |    | Default | To make program change |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  | Extensions | all extensions | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | Feature key | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | FWD/DND key |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Default         | To make program change   |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extensions            | all extensions  | 11   | 12 | 13      | 14                     | 15 | 16               | 17   | 18 | 19 | 20            | 21 | 22 | 23 | 24      | 25 | 26 |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Feature key           | x               |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FWD/DND key           |                 |  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Station Program Clear | [98]            | [NEXT] [MEMORY] [END]  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| System Clear          | [99]            | [NEXT] [MEMORY] [END]  |    |         |                        |    |                  |      |    |    |               |    |    |    |         |    |    |  |  |  |            |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# IC I/O DATA



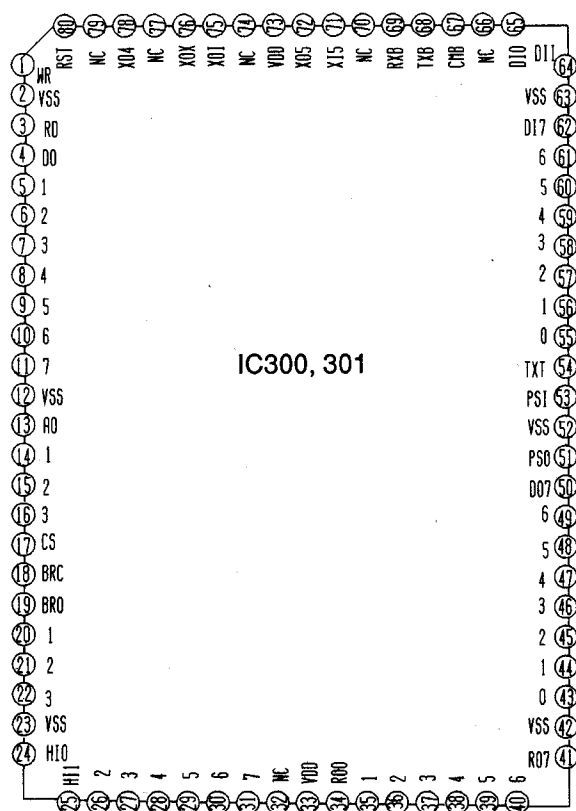
# IC508

| Port | Pin No. | I/O | Signal Name                        | High Imp.        | High Level          | Low Level       | Remarks |
|------|---------|-----|------------------------------------|------------------|---------------------|-----------------|---------|
| P00  | 20      | O   | SH1: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P01  | 21      | O   | MT1: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P02  | 22      | O   | HD1: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P03  | 23      | O   | CF1: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P04  | 24      | O   | DL1: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P05  | 25      | O   | DS1: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P06  | 26      | I   | BELL1: Bell, CPC Input             | ----             | No Bell, Line Break | Bell, Line Make |         |
| P07  | 27      | I   | SID: DTMF Signal Detection 1       | ----             | ----                | ----            |         |
| P10  | 30      | O   | SH2: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P11  | 31      | O   | MT2: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P12  | 32      | O   | HD2: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P13  | 33      | O   | CF2: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P14  | 34      | O   | DL2: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P15  | 35      | O   | DS2: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P16  | 36      | I   | BELL2: Bell, CPC Input             | ----             | No Bell, Line Break | Bell, Line Make |         |
| P17  | 37      | I   | SID: DTMF Signal Detection 2       | ----             | ----                | ----            |         |
| P20  | 38      | O   | SH3: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P21  | 39      | O   | MT3: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P22  | 41      | O   | HD3: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P23  | 42      | O   | CF3: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P24  | 43      | O   | DL3: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P25  | 44      | O   | DS3: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P26  | 45      | I   | BELL3: Bell, CPC Input             | ----             | No Bell, Break      | Bell, Make      |         |
| P27  | 46      | O   | DAY: Day Mode LED Control          | Lights-out       | Lights-out          | Lighting        |         |
| P30  | 47      | O   | SH4: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P31  | 48      | O   | MT4: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P32  | 49      | O   | HD4: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P33  | 50      | O   | CF4: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P34  | 51      | O   | DL4: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P35  | 52      | O   | DS4: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P36  | 55      | I   | BELL4: Bell, CPC Input             | ----             | No Bell, Line Break | Bell, Line Make |         |
| P37  | 56      | O   | NIGHT: Night Mode LED Control      | Lights-out       | Lights-out          | Lighting        |         |
| P40  | 57      | O   | SH5: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P41  | 58      | O   | MT5: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P42  | 59      | O   | HD5: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P43  | 60      | O   | CF5: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P44  | 61      | O   | DL5: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P45  | 62      | O   | DS5: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P46  | 63      | I   | BELL5: Bell, CPC Input             | ----             | No Bell, Line Break | Bell, Line Make |         |
| P47  | 64      | O   | PD RLY: Power Failure Control      | Break            | Break               | Make            |         |
| P50  | 66      | O   | SH6: CO Amp Shunt Control          | Non Shunt        | Non Shunt           | Shunt           |         |
| P51  | 67      | O   | MT6: CO Amp Mute Control           | Mute             | Mute                | Non Mute        |         |
| P52  | 68      | O   | HD6: CO Amp Hold Tone Control      | Non Transmission | Non Transmission    | Transmission    |         |
| P53  | 69      | O   | CF6: CO Amp Conference             | Non Conference   | Non Conference      | Conference      |         |
| P54  | 70      | O   | DL6: Line Close, Dial Transmission | Break            | Break               | Make            |         |
| P55  | 71      | O   | DS6: Spark Erase Relay Control     | Break            | Break               | Make            | (RSVD)  |
| P56  | 72      | I   | BELL6: Bell, CPC Input             | ----             | No Bell, Line Break | Bell, Line Make |         |
| P57  | 73      | —   | Not Used                           | ----             | ----                | ----            |         |
| P60  | 74      | O   | TA0: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P61  | 75      | O   | TA1: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P62  | 76      | O   | TA2: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P63  | 77      | O   | TA3: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P64  | 78      | O   | TA4: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P65  | 81      | O   | TA5: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P66  | 82      | O   | TA6: Cross Point Data              | Data Low         | Data Low            | Data High       |         |
| P67  | 83      | O   | TA7: Cross Point Data              | Data Low         | Data Low            | Data High       |         |



## IC508

| Port | Pin No. | I/O | Signal Name                       | High Imp.   | High Level  | Low Level    | Remarks |
|------|---------|-----|-----------------------------------|-------------|-------------|--------------|---------|
| P70  | 84      | O   | A: Cross Point Address            | Address Low | Address Low | Address High |         |
| P71  | 85      | O   | B: Cross Point Address            | Address Low | Address Low | Address High |         |
| P72  | 86      | O   | C: Cross Point Address            | Address Low | Address Low | Address High |         |
| P73  | 87      | O   | D: Cross Point Address            | Address Low | Address Low | Address High |         |
| P74  | 88      | O   | STB1: Cross Point Strobe          | Strobe Low  | Strobe Low  | Strobe High  |         |
| P75  | 89      | O   | STB2: Cross Point Strobe          | Strobe Low  | Strobe Low  | Strobe High  |         |
| P76  | 91      | O   | STB3: Cross Point Strobe          | Strobe Low  | Strobe Low  | Strobe High  |         |
| P77  | 92      | O   | STB4: Cross Point Strobe          | Strobe Low  | Strobe Low  | Strobe High  |         |
| P80  | 93      | O   | ROW1: PB Signal Generator, 1 Line | Uncertainty | High        | Low          |         |
| P81  | 94      | O   | ROW2: PB Signal Generator, 2 Line | Uncertainty | High        | Low          |         |
| P82  | 95      | O   | ROW3: PB Signal Generator, 3 Line | Uncertainty | High        | Low          |         |
| P83  | 96      | O   | ROW4: PB Signal Generator, 4 Line | Uncertainty | High        | Low          |         |
| P84  | 97      | O   | COL1: PB Signal Generator, 1 Row  | Uncertainty | High        | Low          |         |
| P85  | 98      | O   | COL2: PB Signal Generator, 2 Row  | Uncertainty | High        | Low          |         |
| P86  | 99      | O   | COL3: PB Signal Generator, 3 Row  | Uncertainty | High        | Low          |         |
| P87  | 100     | O   | COL4: PB Signal Generator, 4 Row  | Uncertainty | High        | Low          |         |



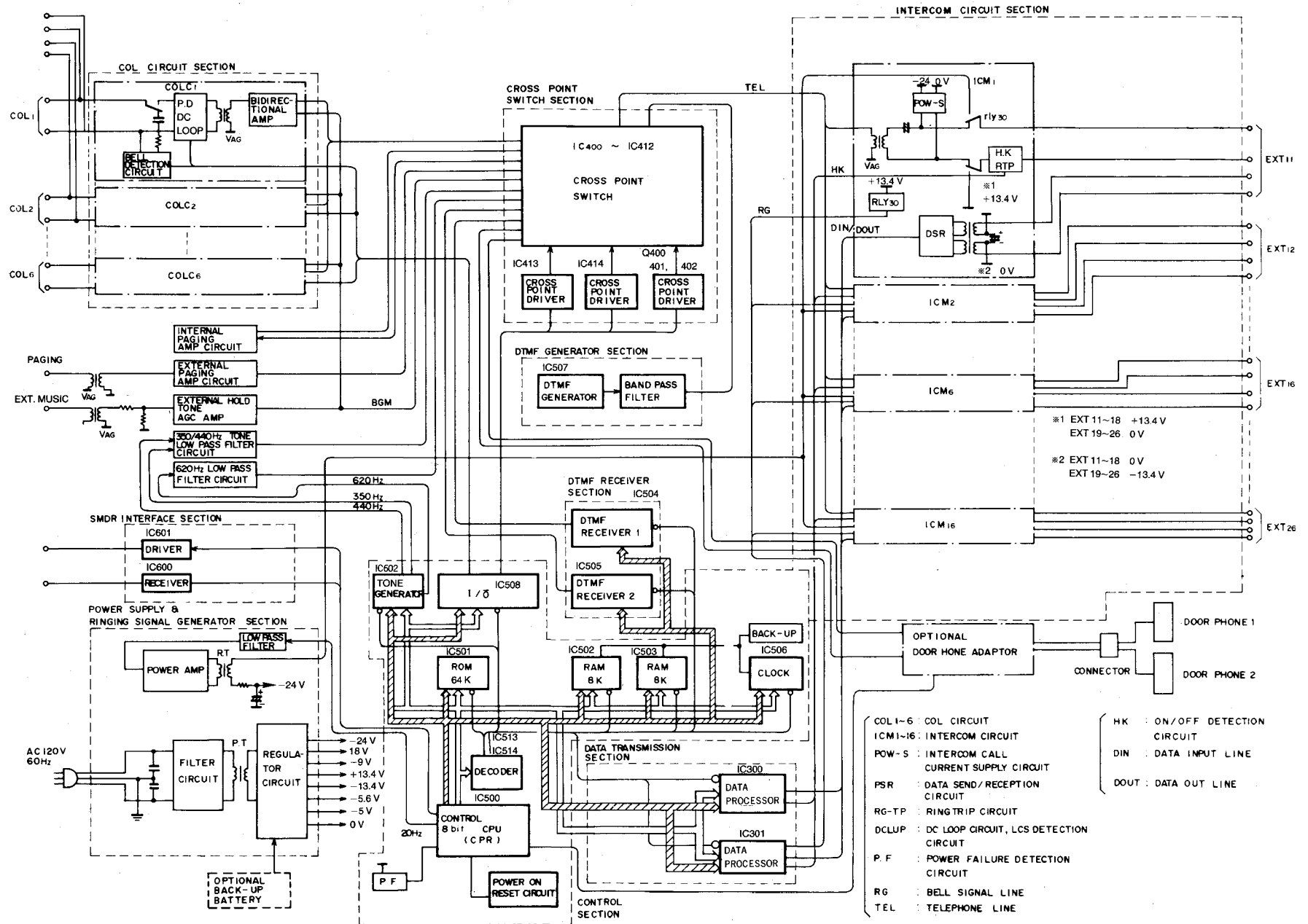


|    |       |     |    |
|----|-------|-----|----|
| 1  | VSS   | E   | 64 |
| 2  | XTAL  | RD  | 63 |
| 3  | EXTAL | WR  | 62 |
| 4  | MP0   | R/W | 61 |
| 5  | PP1   | LIR | 60 |
| 6  | RES   | BA  | 59 |
| 7  | STBY  | DO  | 58 |
| 8  | NMI   | I   | 57 |
| 9  | P20   | 2   | 56 |
| 10 | P21   | 3   | 55 |
| 11 | P22   | 4   | 54 |
| 12 | RX    | 5   | 53 |
| 13 | TX    | 6   | 52 |
| 14 | P25   | 7   | 51 |
| 15 | P26   | AO  | 50 |
| 16 | P27   | 1   | 49 |
| 17 | P50   | 2   | 48 |
| 18 | IRQ2  | 3   | 47 |
| 19 | P52   | 4   | 46 |
| 20 | HALT  | 5   | 45 |
| 21 | P54   | 6   | 44 |
| 22 | P55   | 7   | 43 |
| 23 | P56   | VSS | 42 |
| 24 | P57   | AB  | 41 |
| 25 | P60   | 9   | 40 |
| 26 |       | 10  | 39 |
| 27 |       | 11  | 38 |
| 28 |       | 12  | 37 |
| 29 |       | 13  | 36 |
| 30 |       | 14  | 35 |
| 31 |       | 15  | 34 |
| 32 | P67   | VCC | 33 |

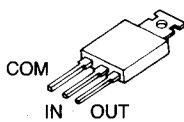
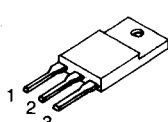
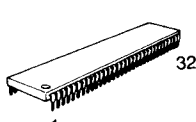
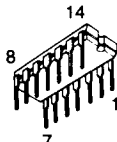
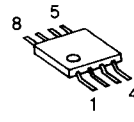
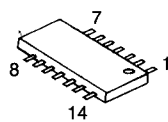
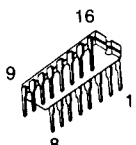
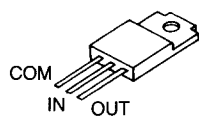
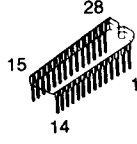
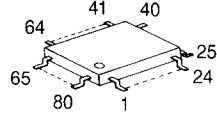
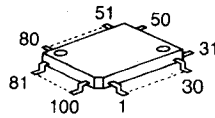
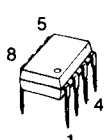
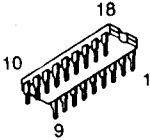
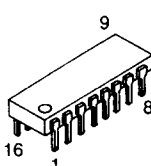
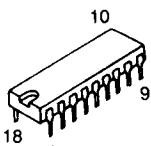
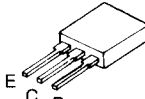
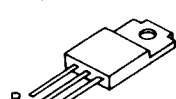
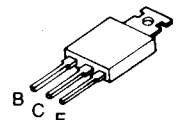
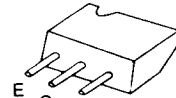
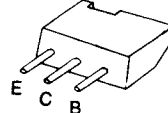

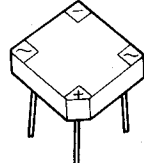
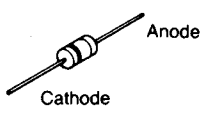
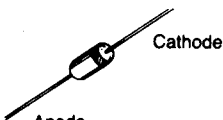
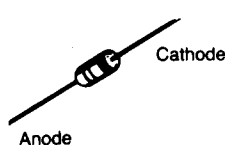
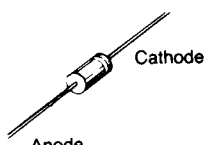


## IC500

| Port | Pin No. | I/O | Signal Name                                | High Imp.   | High Level   | Low Level    | Remarks    |
|------|---------|-----|--|-------------|--------------|--------------|------------|
| NMI  | 8       | I   | CPU Restart                                | ----        | ----         | ----         |            |
| P20  | 9       | I   | OL1: EXT. Over Current Detection (-)       | ----        | Normal       | Over Current | EXT. 19-26 |
| P21  | 10      | I   | OL2: EXT. Over Current Detection (+)       | ----        | Over Current | Normal       | EXT. 11-18 |
| P22  | 11      | O   | BRK1: EXT. Over Current Protection (-)     | Break       | Break        | ON           | EXT. 19-26 |
| RX   | 12      | I   | RXD  | ----        | ----         | ----         |            |
| TX   | 13      | O   | TXD  | ----        | ----         | ----         |            |
| P25  | 14      | O   | BRK2: EXT. Over Current Protection (+)     | Break       | Break        | ON           | EXT. 11-18 |
| P26  | 15      | O   | BUSY1: Doorphone 1 ON/OFF Control          | OFF         | OFF          | ON           |            |
| P27  | 16      | O   | BUSY2: Doorphone 2 ON/OFF Control          | OFF         | OFF          | ON           |            |
| P50  | 17      | —   | -----                                      | ----        | ----         | ----         |            |
| IRQ2 | 18      | I   | PF: Power Down Detection                   | ----        | Power Down   | Normal       |            |
| P52  | 19      | I   | DROPT: Doorphone Adaptor Connect Detection | Non-Connect | Connect      |              |            |
| HALT | 20      | I   | HALT: Halt Control Input                   | Normal      | Power Down   |              |            |
| P54  | 21      | I   | DHK1: Doorphone 1 Hook Detection           | On-Hook     | Off-Hook     |              |            |
| P55  | 22      | I   | DHK2: Doorphone 2 Hook Detection           | On-Hook     | Off-Hook     |              |            |
| P56  | 23      | I   | CNCT1: Doorphone 1 Connect Detection       | Connect     | Non-Connect  |              |            |
| P57  | 24      | I   | CNCT2: Doorphone 2 Connect Detection       | Connect     | Non-Connect  |              |            |
| P60  | 25      | —   | -----                                      | ----        | ----         | ----         |            |
| P61  | 26      | O   | BANK: Bank Select Control                  | ----        | ----         | ----         |            |
| P62  | 27      | I   | CTS  | ----        | ----         | ----         |            |
| P63  | 28      | —   | -----                                      | ----        | ----         | ----         |            |
| P64  | 29      | I   | DSR  | ----        | ----         | ----         |            |
| P65  | 30      | I   | DTR  | ----        | ----         | ----         |            |
| P66  | 31      | O   | PF: Power Down Control                     | ----        | Power Down   | Normal       |            |
| P67  | 32      | O   | 20Hz: Bell Signal Output                   | ----        | ----         | ----         |            |

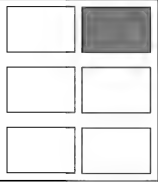
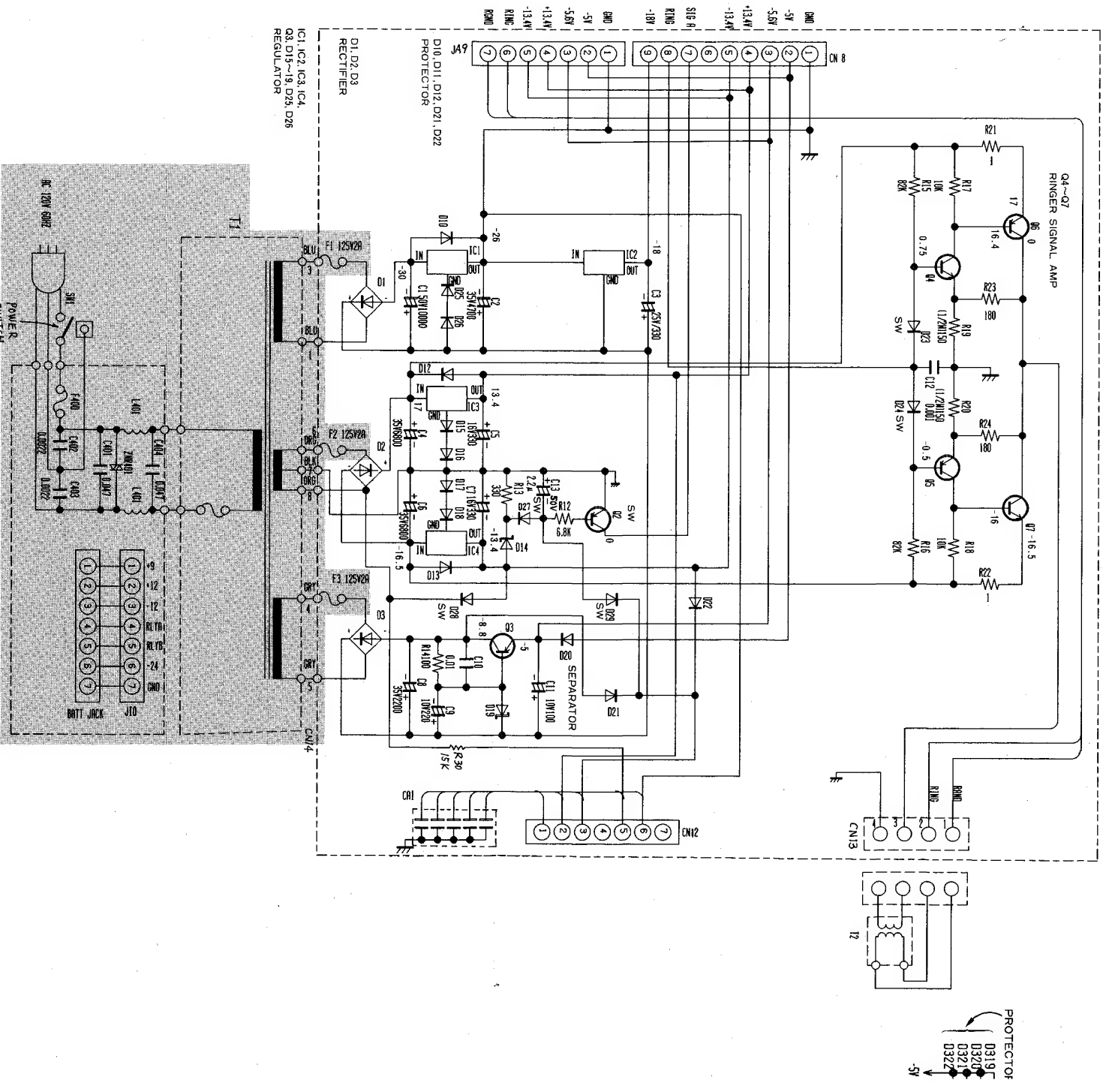
# BLOCK DIAGRAM



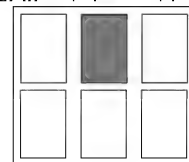
# TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

|  |   |   |  |   |
|--|---|---|--|---|
|  <p>PQVITA7924<br/>PQVITA7812AF</p> |  <p>AN7912T</p>  |  <p>PQVIH63B03XP</p>   |  <p>PQVITC7H04P<br/>PQVITC7H08P<br/>PQVIHD75188P<br/>PQVIHD75189P</p> |  <p>PQVINJM4558M</p> |
|  <p>PQVITC4066BF</p>                |  <p>PQVITD62706P<br/>PQVITC7H139P<br/>PQVITC7H138P</p> |  <p>PQVIPC79M18F</p>   |  <p>PQVIHM6264LA<br/>PQWIT61610M2</p>                                 |  <p>PQVI671152F</p>  |
|  <p>PQVI63HB110</p>                 |  <p>PQVINJM4558D</p>                                   |   |  |  <p>PQVIMT8870BC</p> |
|  <p>PQVILR4089<br/>PQVIBU3140</p> |  <p>PQVIMS6242BS</p>                                 |  <p>2SA1626</p>  |  <p>2SB1015<br/>2SD1406</p>   |   |
|  <p>2SB834<br/>2SC2590</p>        |  <p>2SA881, 2SB644<br/>2SC2673, 2SD639</p>           |  <p>DTA124EA<br/>DTA124XA<br/>DTA143A<br/>DTA144A<br/>2SA937<br/>2SC2021<br/>PQVTDTC114Y</p> |  <p>2SC2878</p>   |   |
|  <p>PQVD2B4B41<br/>PQVD3B4B41</p> |  <p>MA4110</p>                                       |  <p>1SS131<br/>1SR35-200<br/>MA4030<br/>PQVDHZS2B1<br/>PQVD1SV124</p>                        |  <p>MA1056<br/>MA4036<br/>MA4047<br/>MA4062<br/>MA4091</p>          |   |
|  <p>PQVDEK03</p>                  |  <p>PQVDS1YB40F1</p>                                 |  <p>LN220RPH<br/>LN320GPH<br/>LN420YPH</p>   |  |   |

POWER REGULATOR BOARD

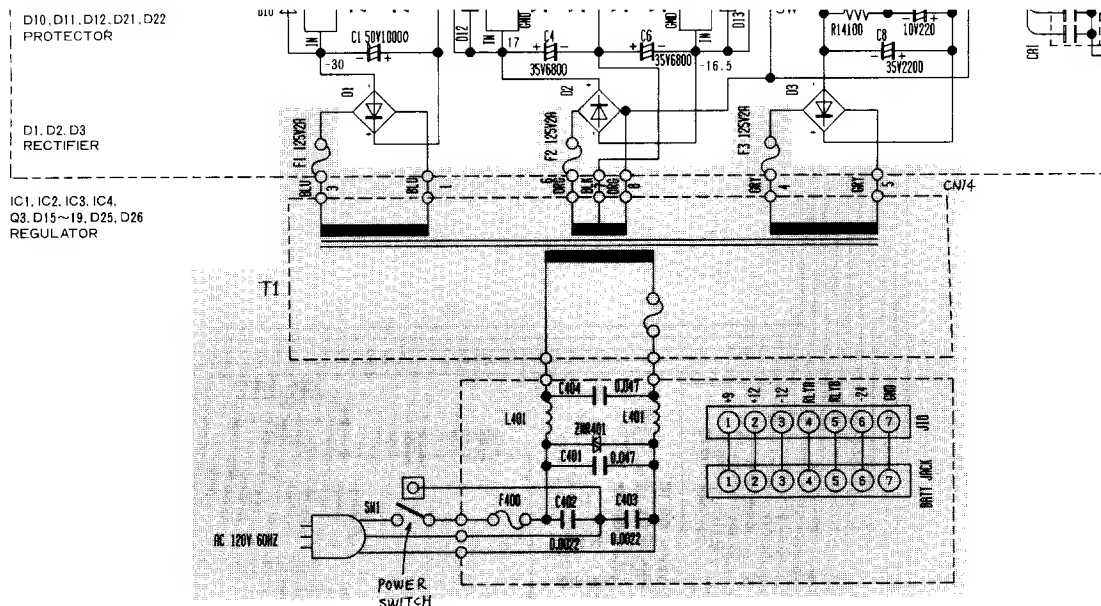


## 12














**Notes:**

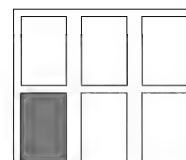
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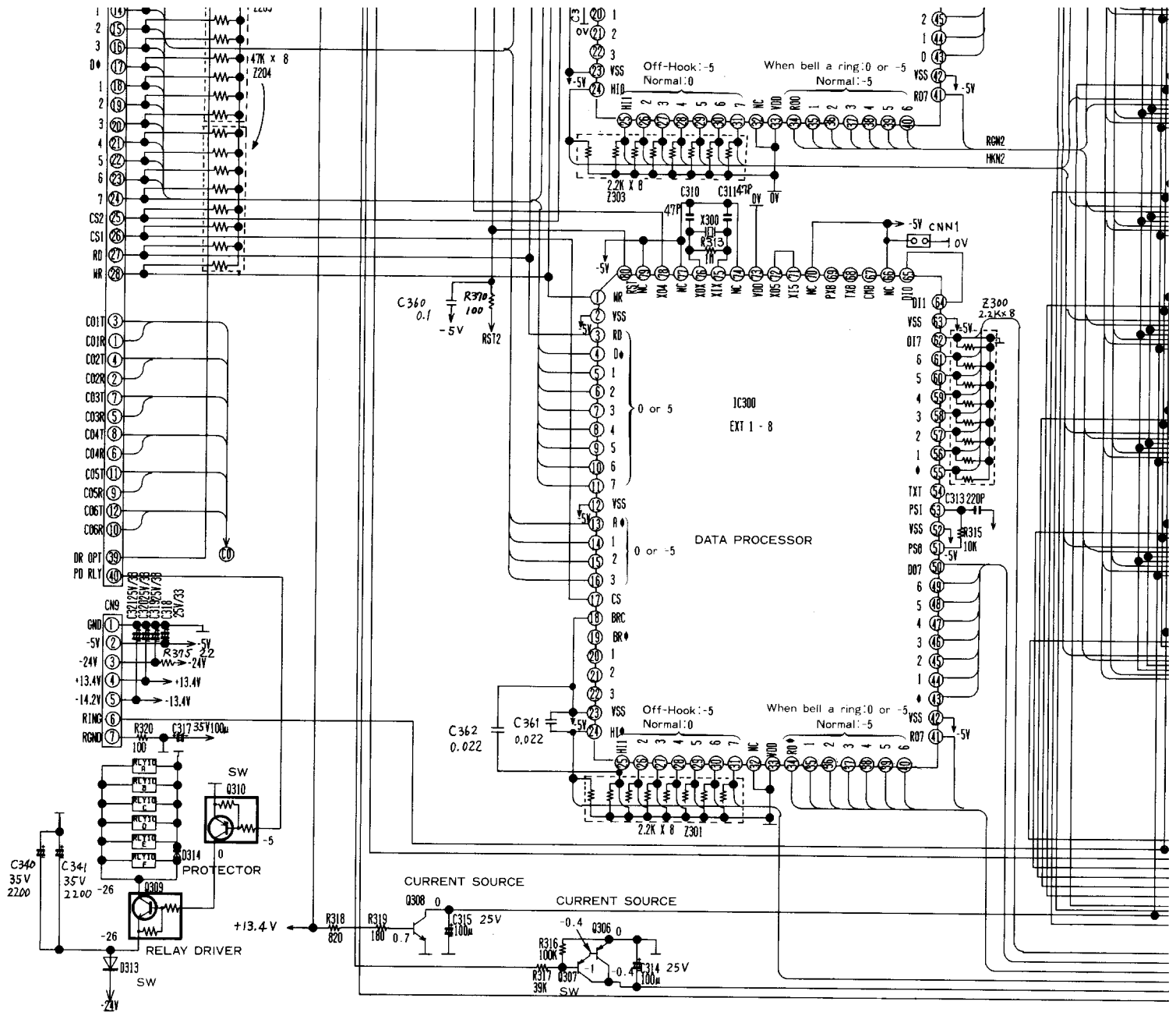
(●Power Switch ON condition)  
 (●Voltage Value: V)

2. This schematic diagram may be modified at any time with the development of new technology.

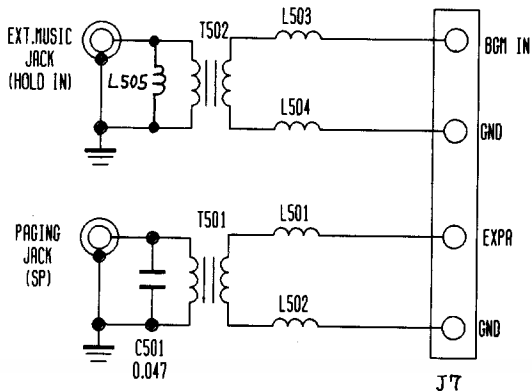
3. **Important safety notice**  
The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

4. **Varicap.** Anode  Cathode
- General** Anode  Cathode
- Zener** Anode  Cathode
- LED** Anode  Cathode
- Photo Diode** Cathode  Anode

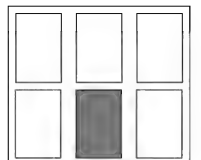
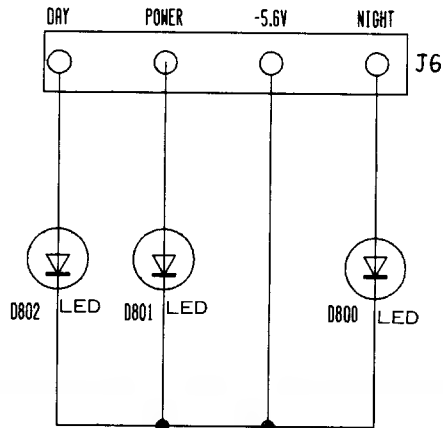




JACK BOARD



LED BOARD







# SCHEMATIC DIAGRAM

7

8

9

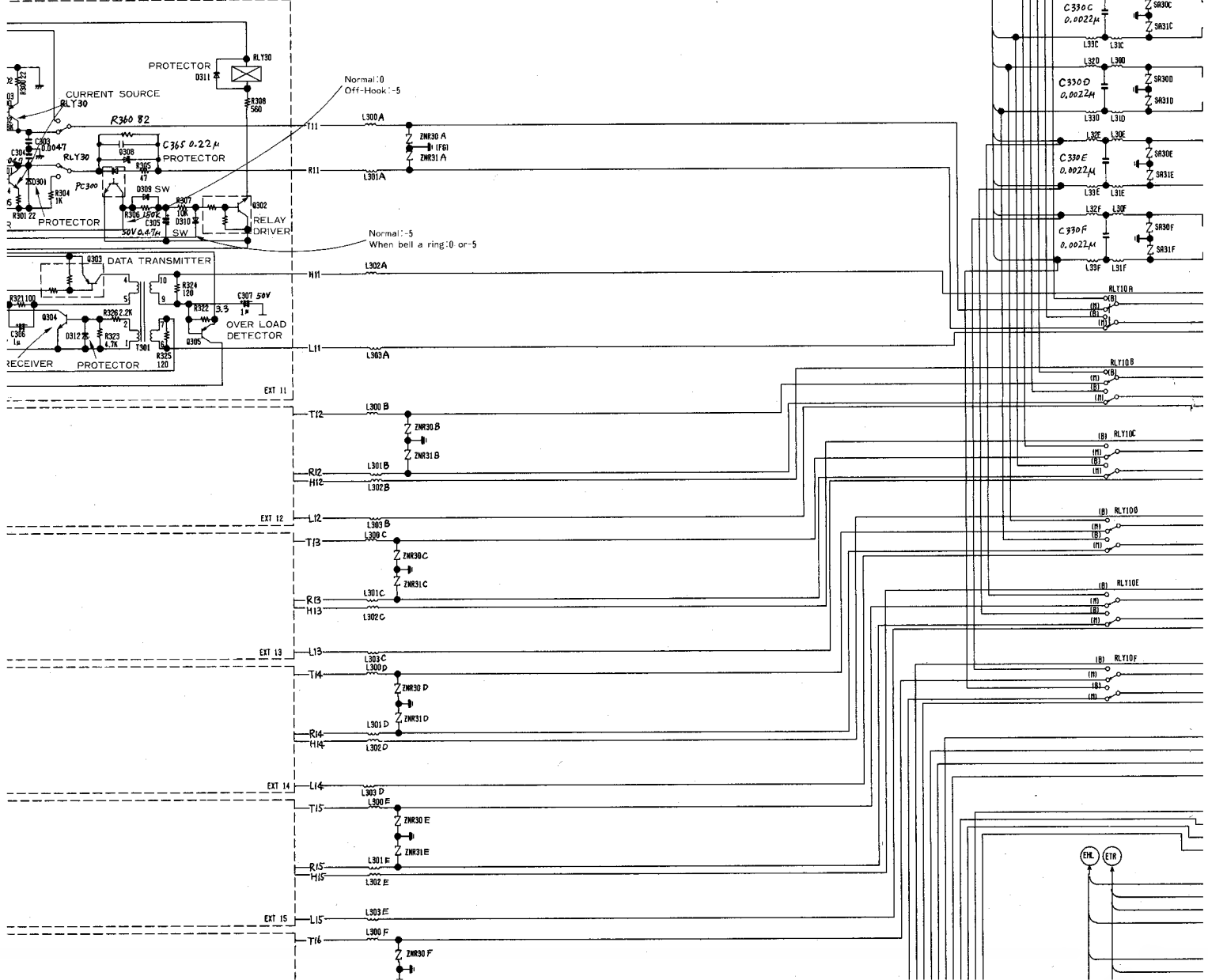
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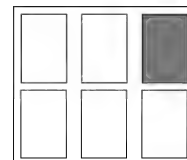
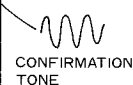
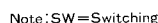
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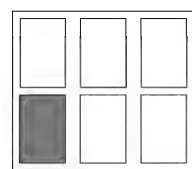
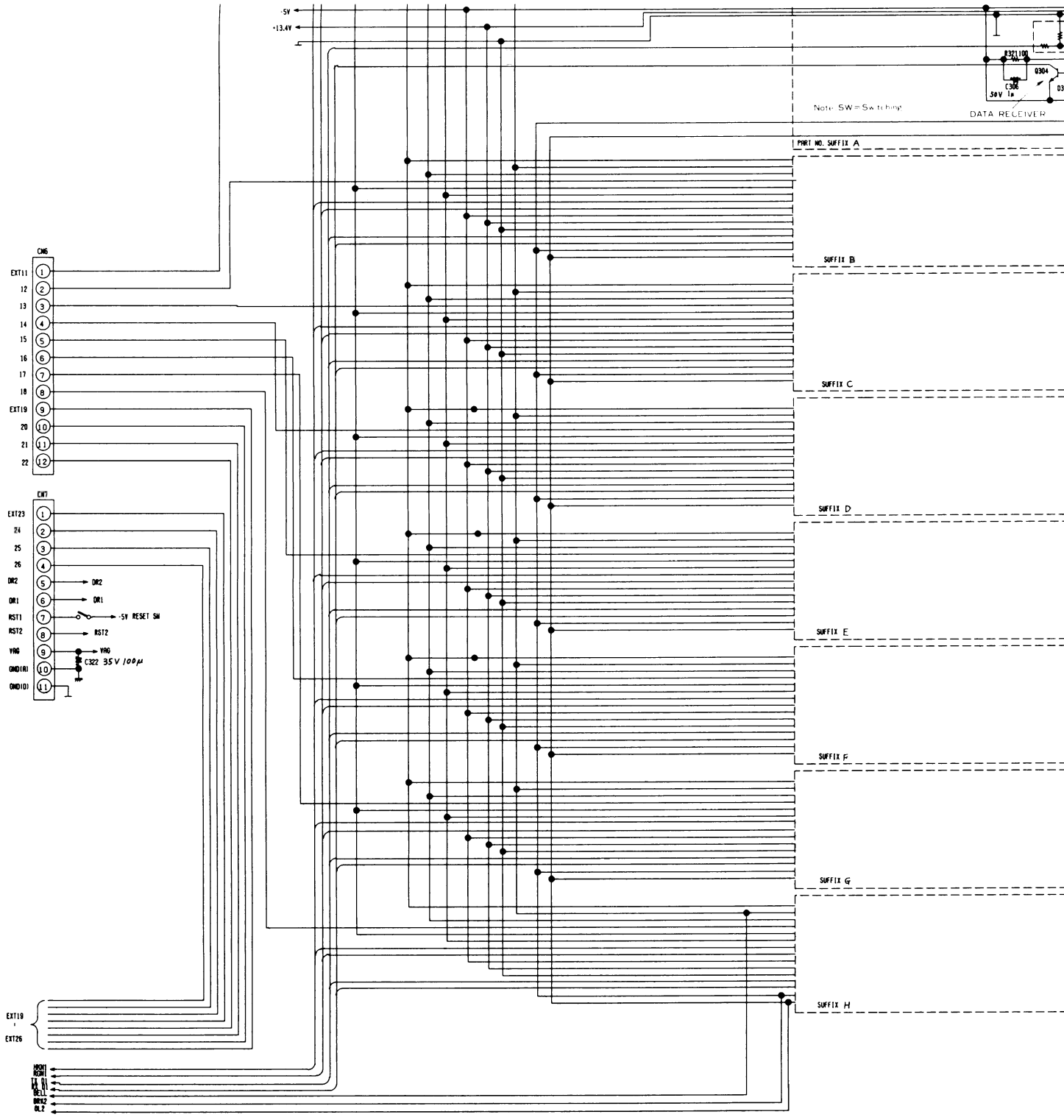
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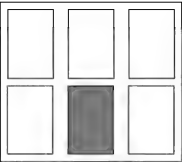
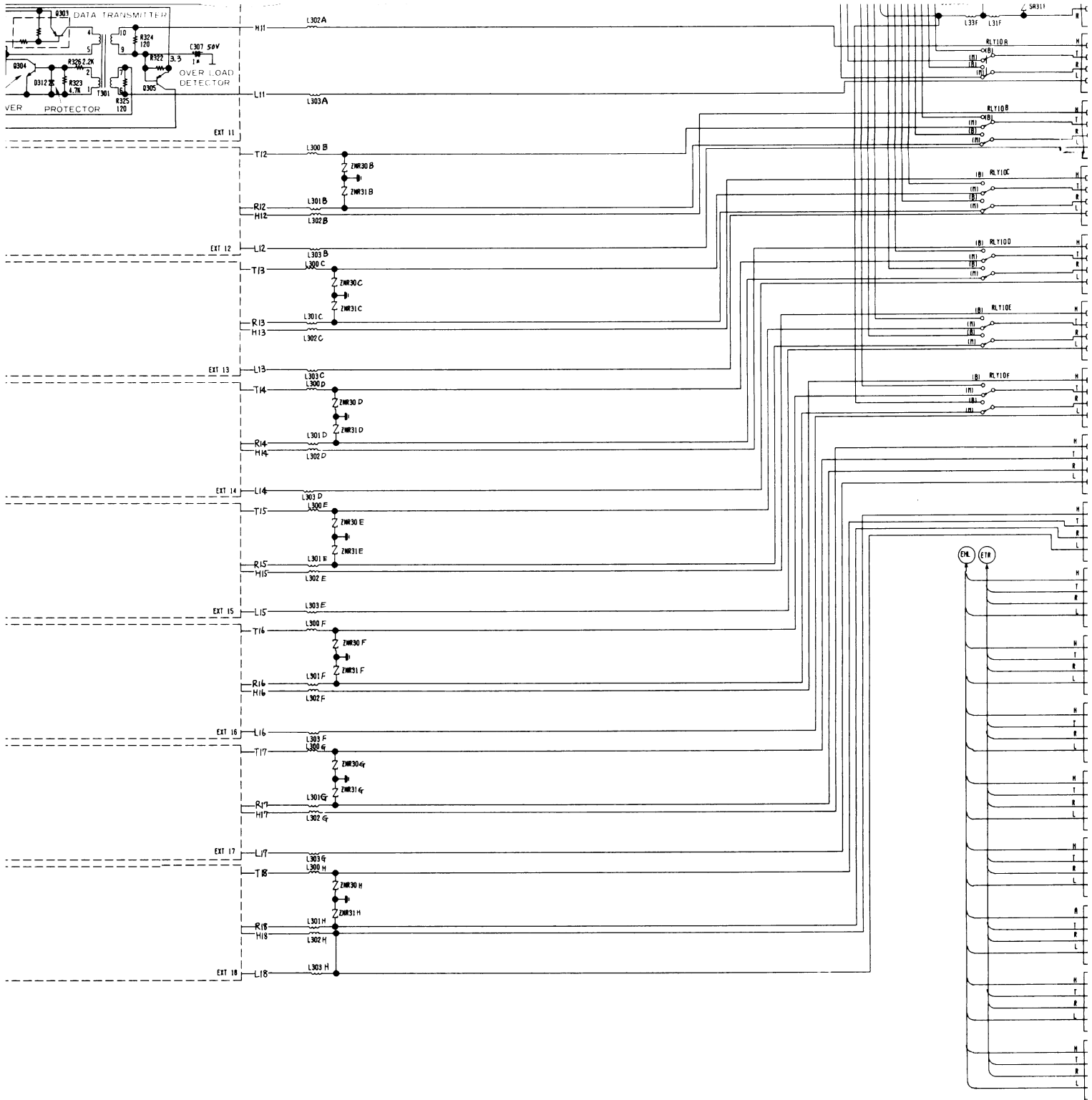
1A IN-B BOARD



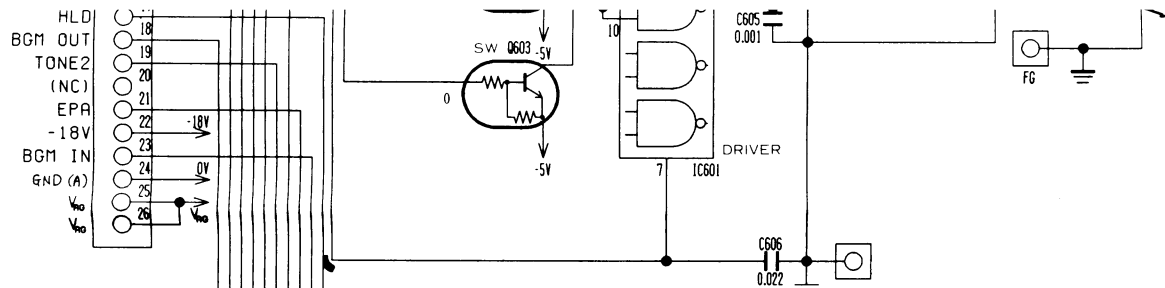


E  
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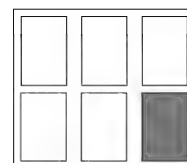
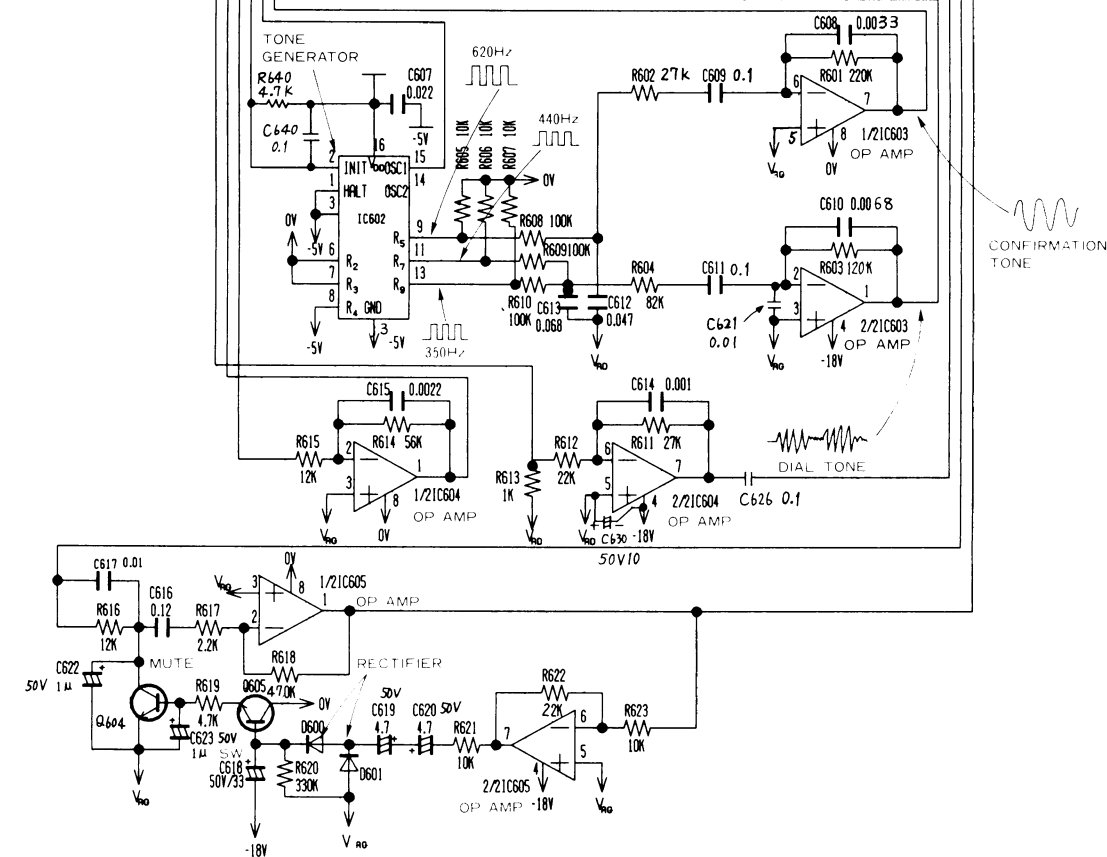








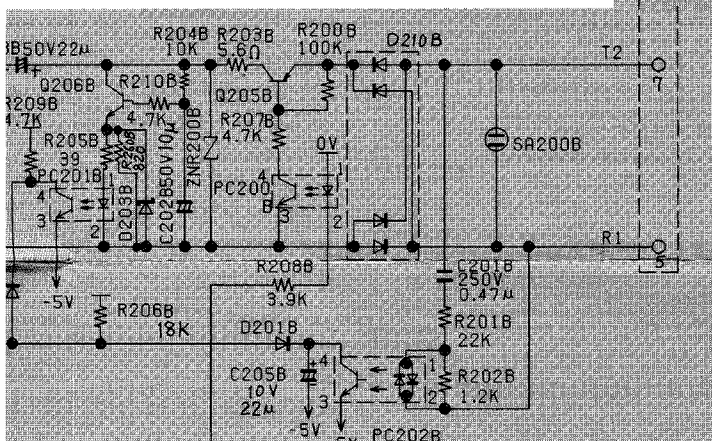
Note: SW=Switching.



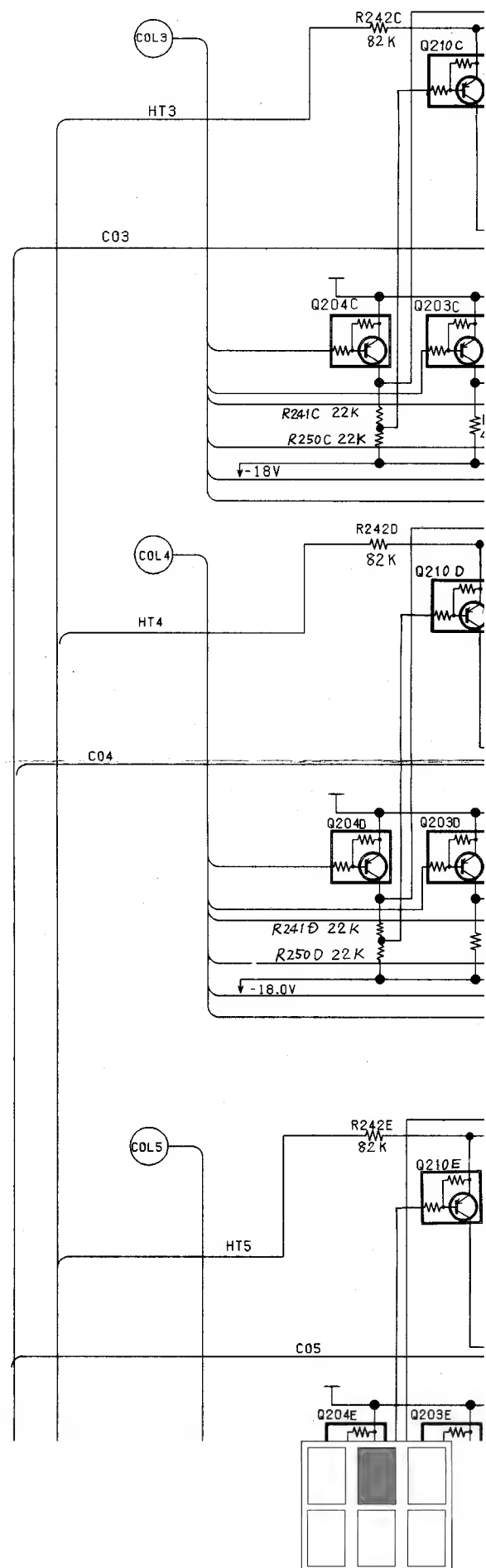
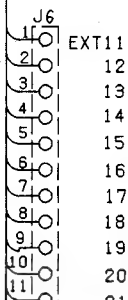
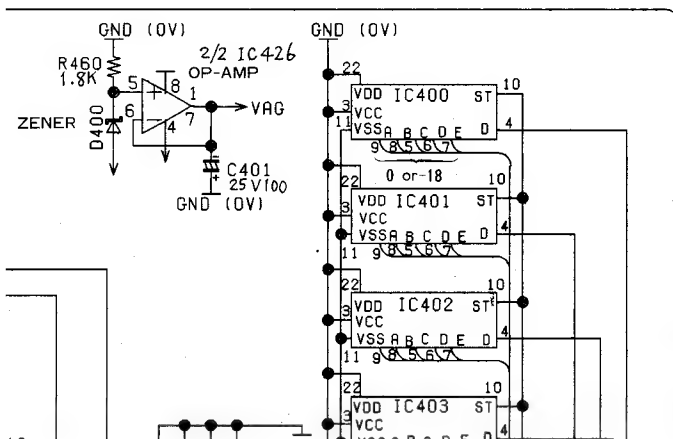


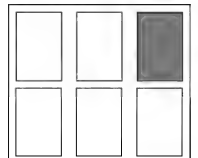
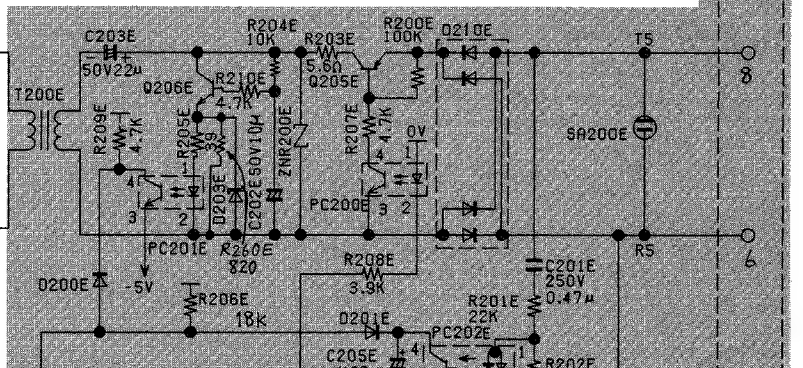
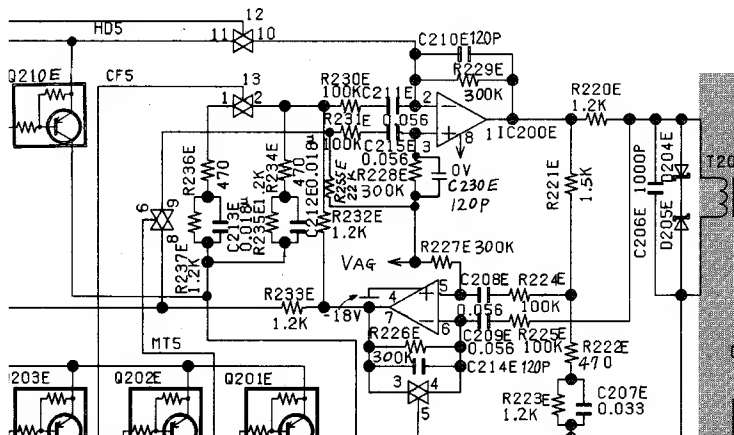
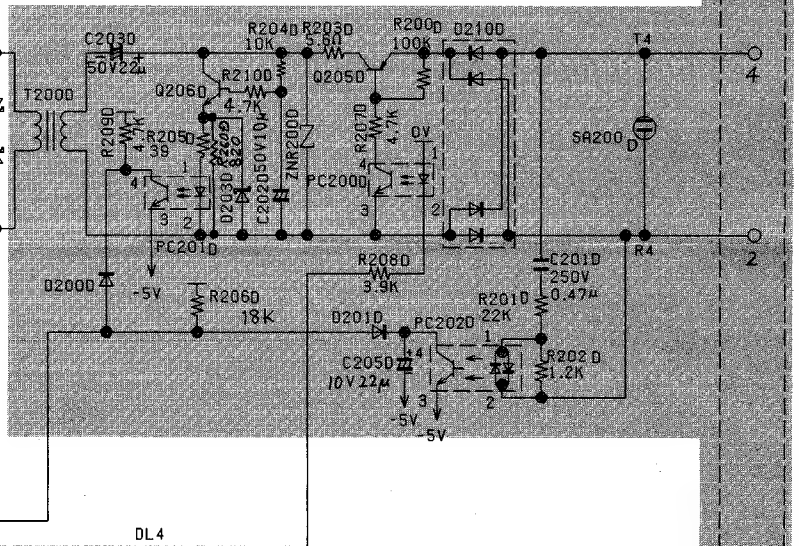
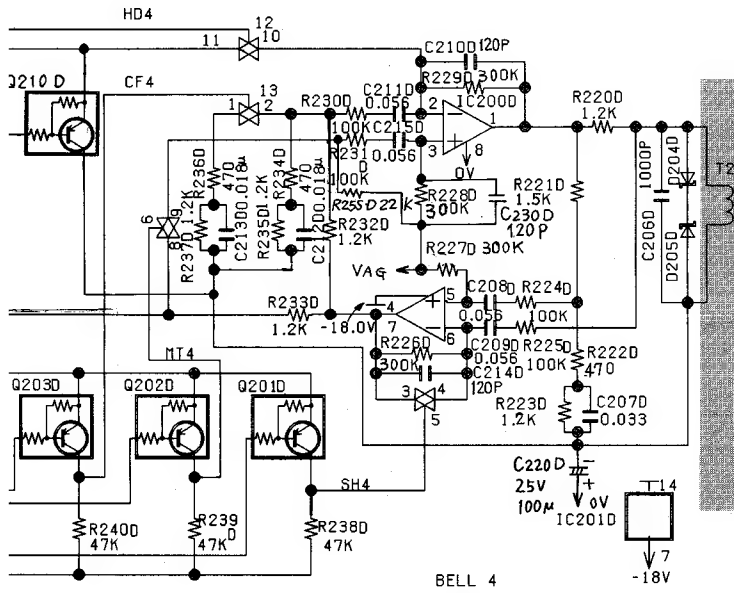
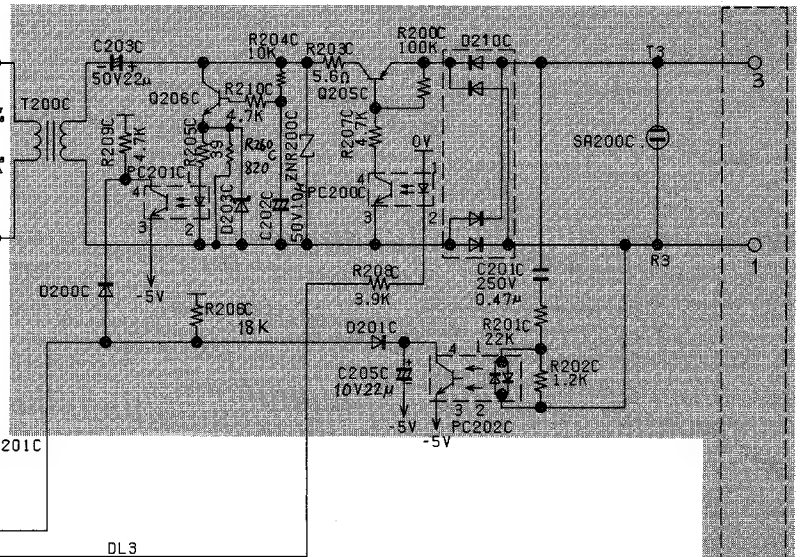
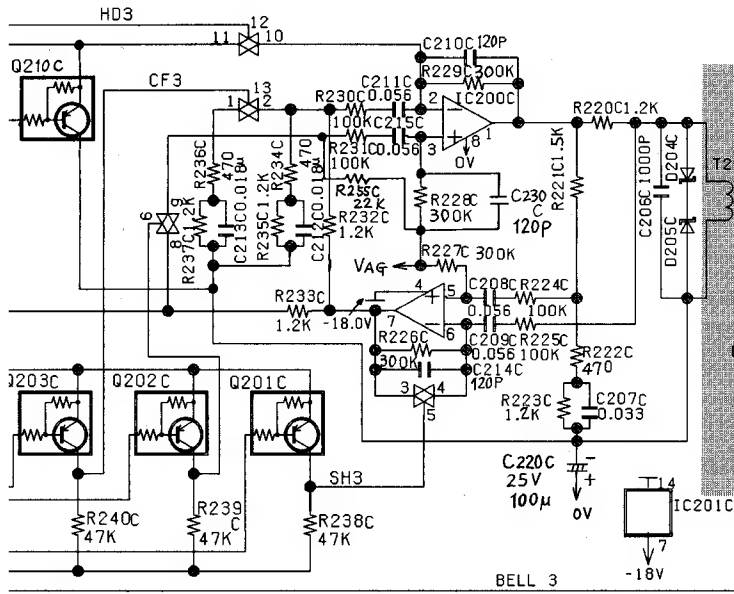
A horizontal number line with tick marks at each integer from 7 to 12. The numbers 7, 8, 9, 10, 11, and 12 are written above their respective tick marks.

Note: SW=Switching



DL 2





F

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H

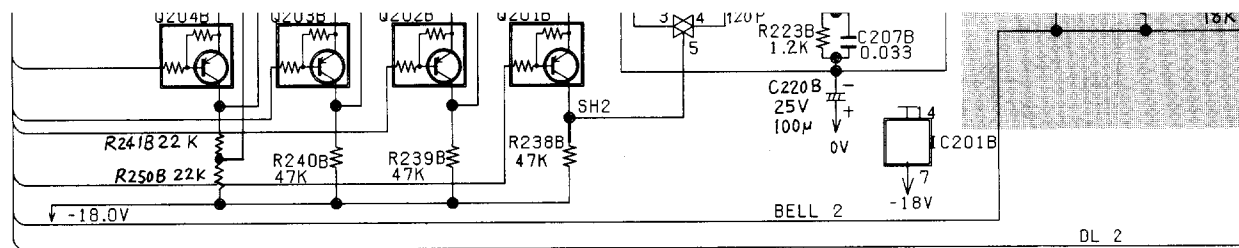
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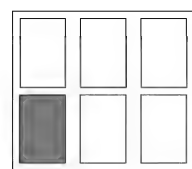
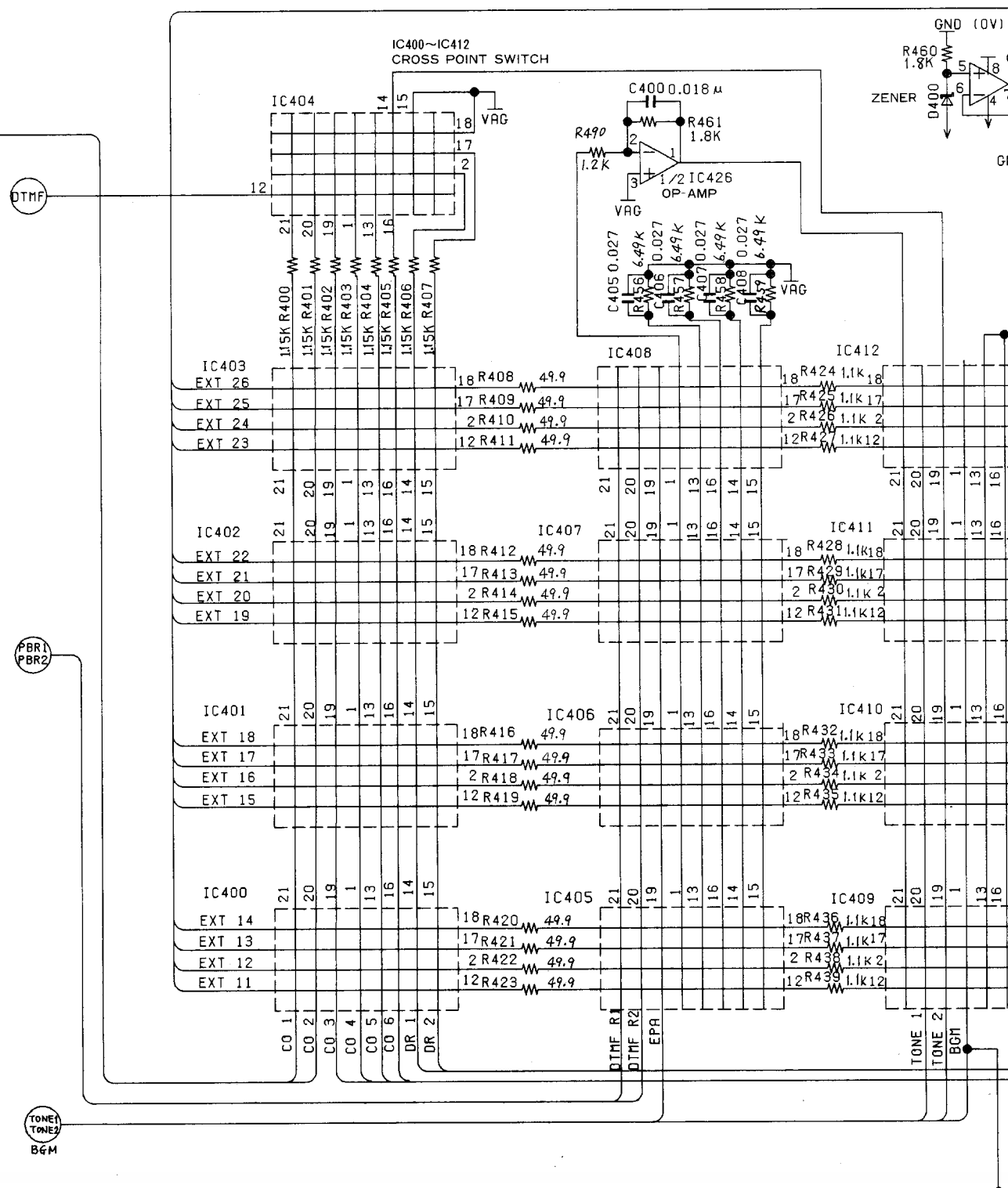
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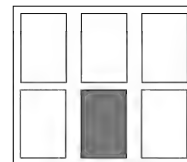
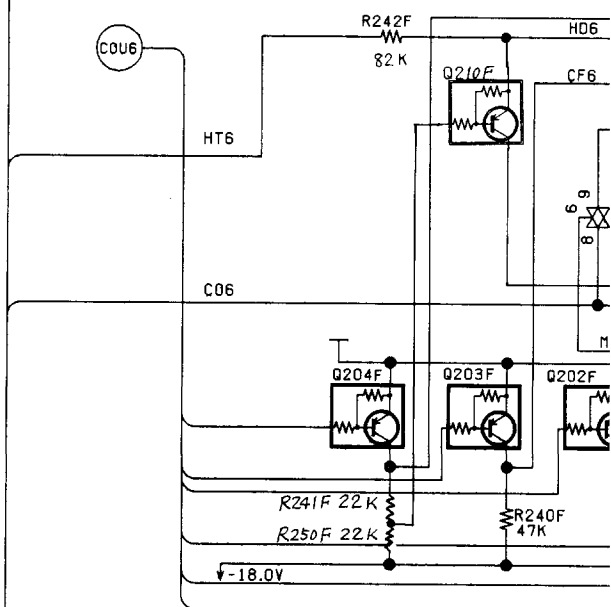
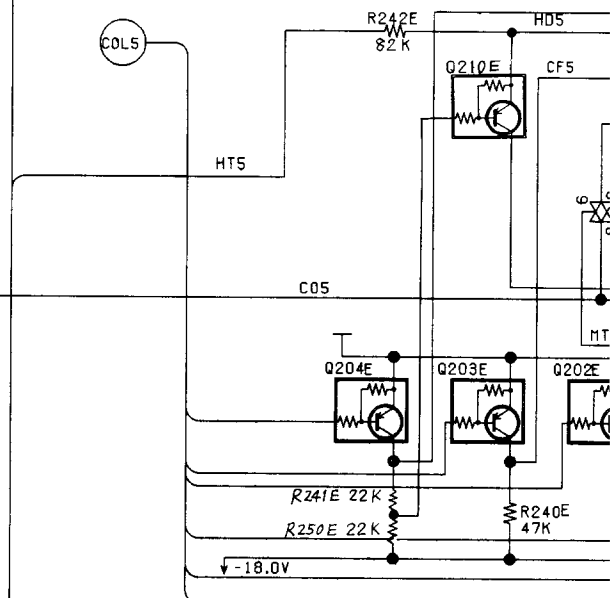
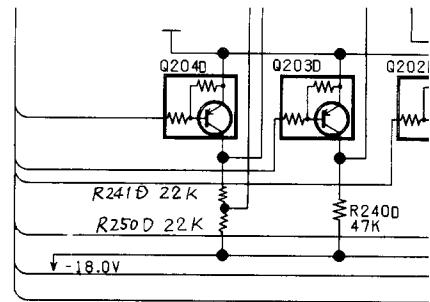
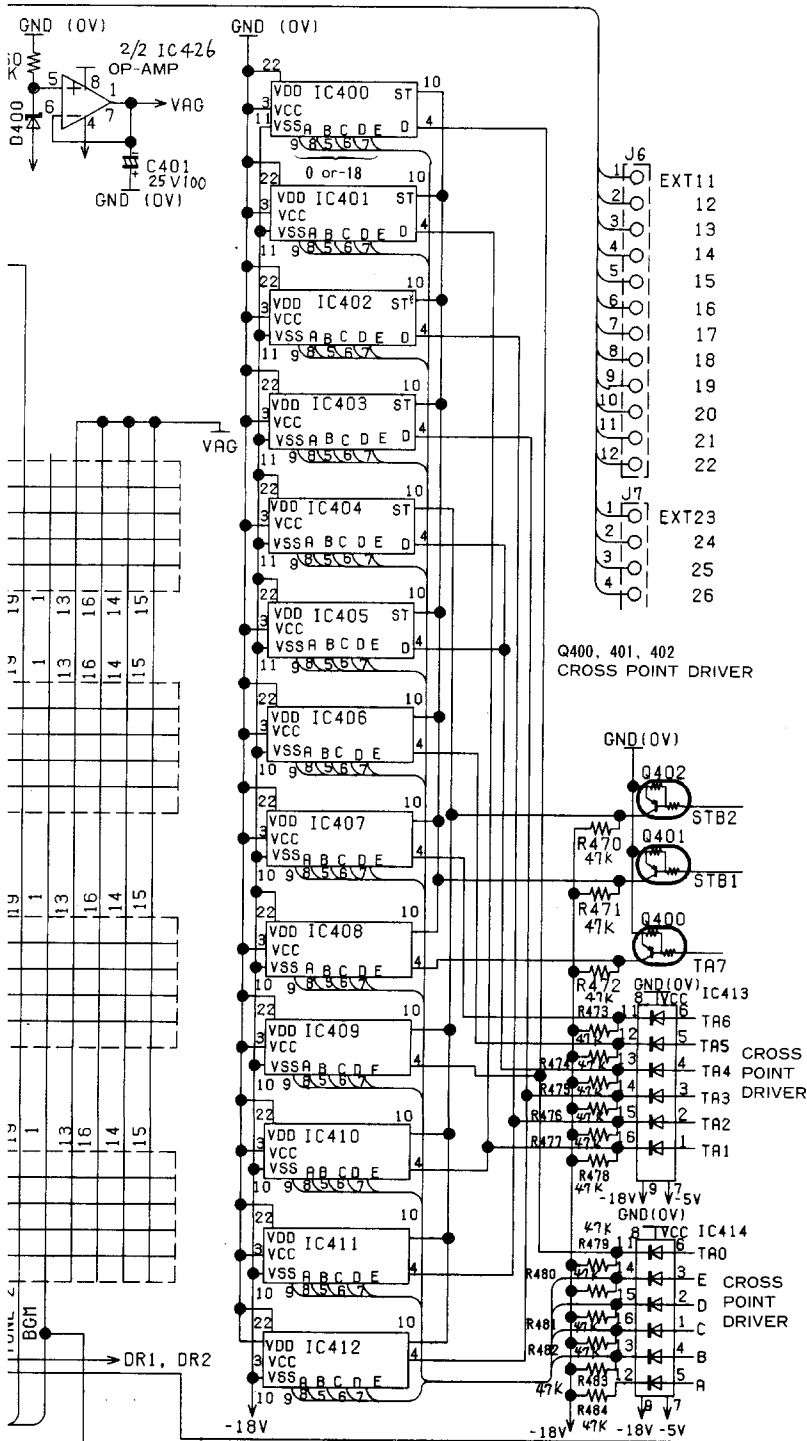
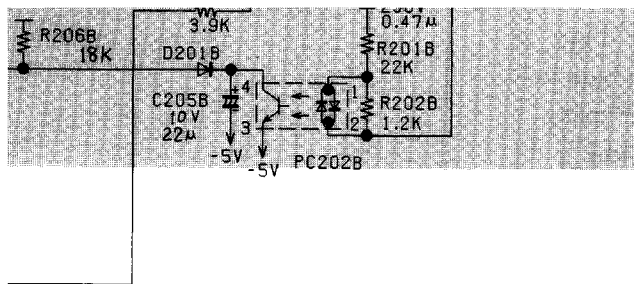
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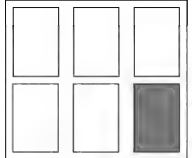
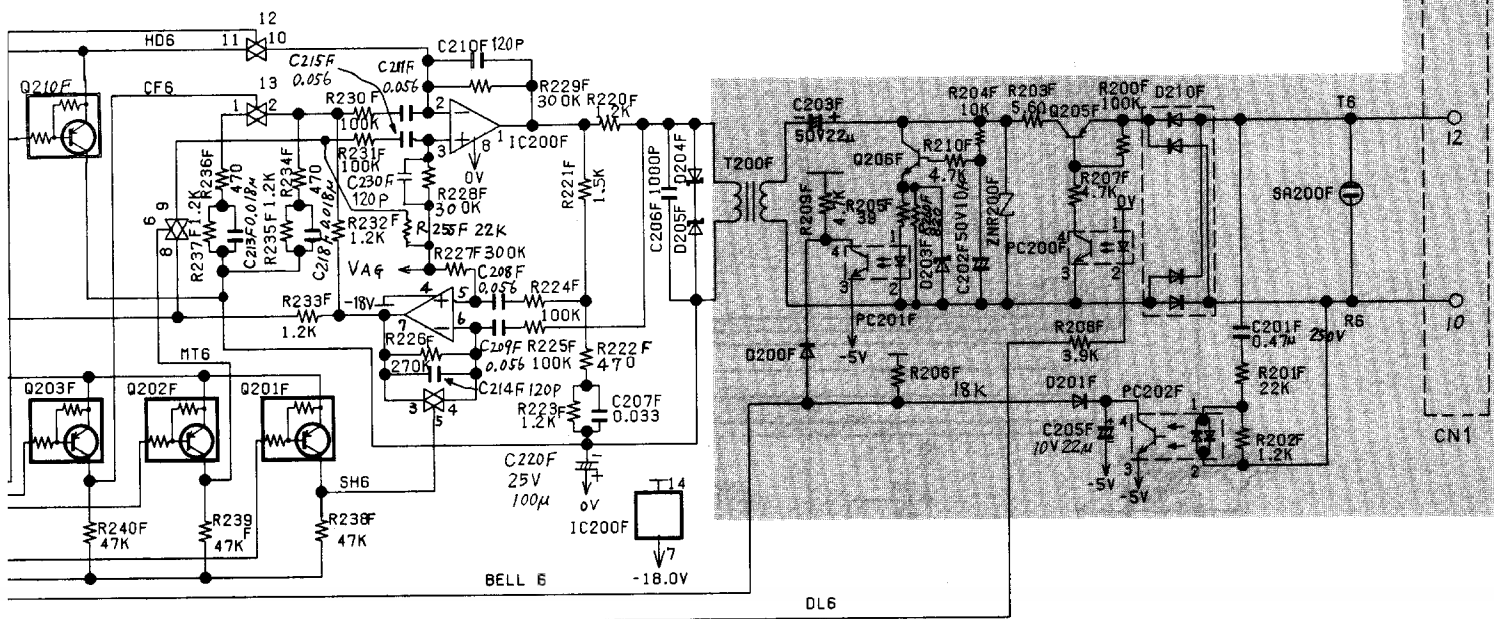
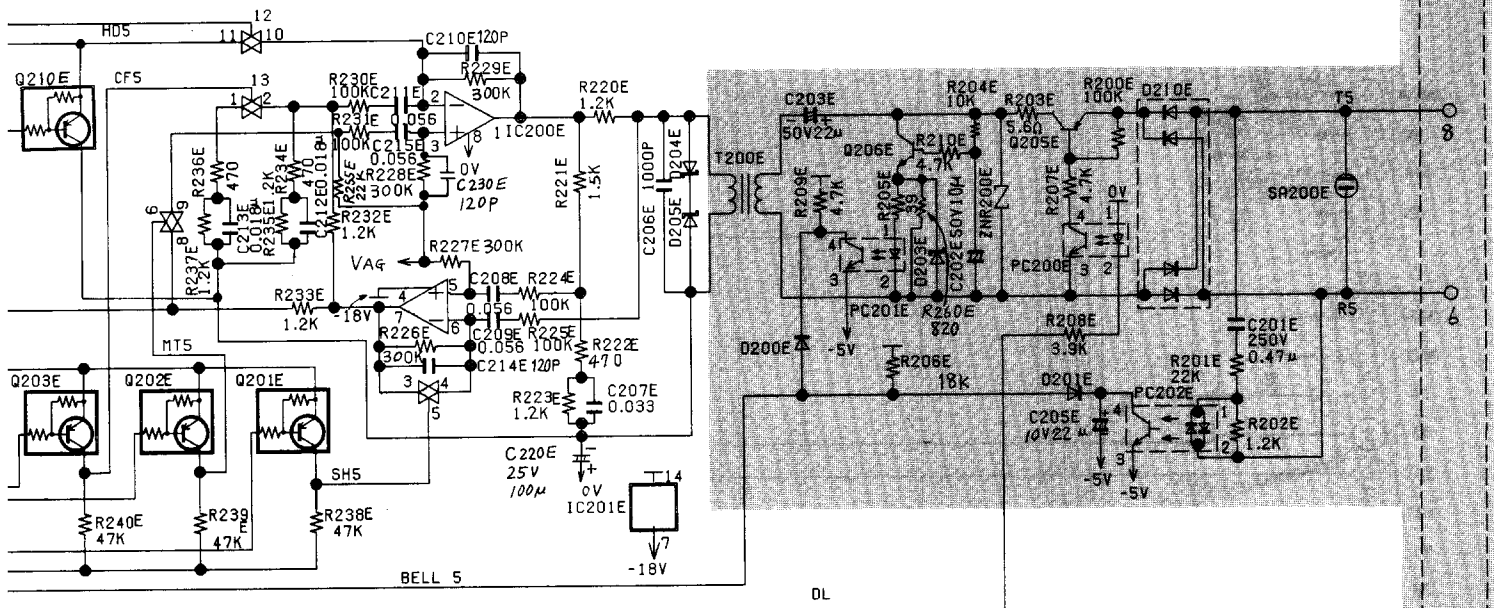
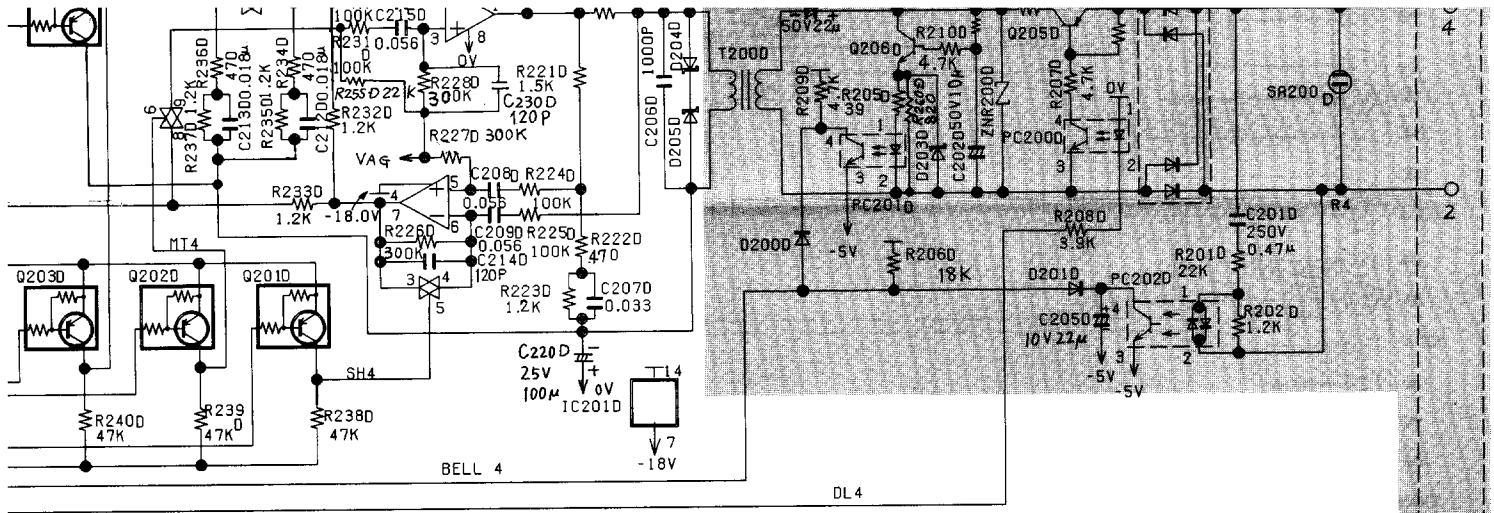


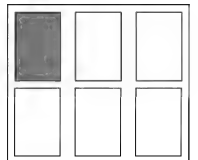
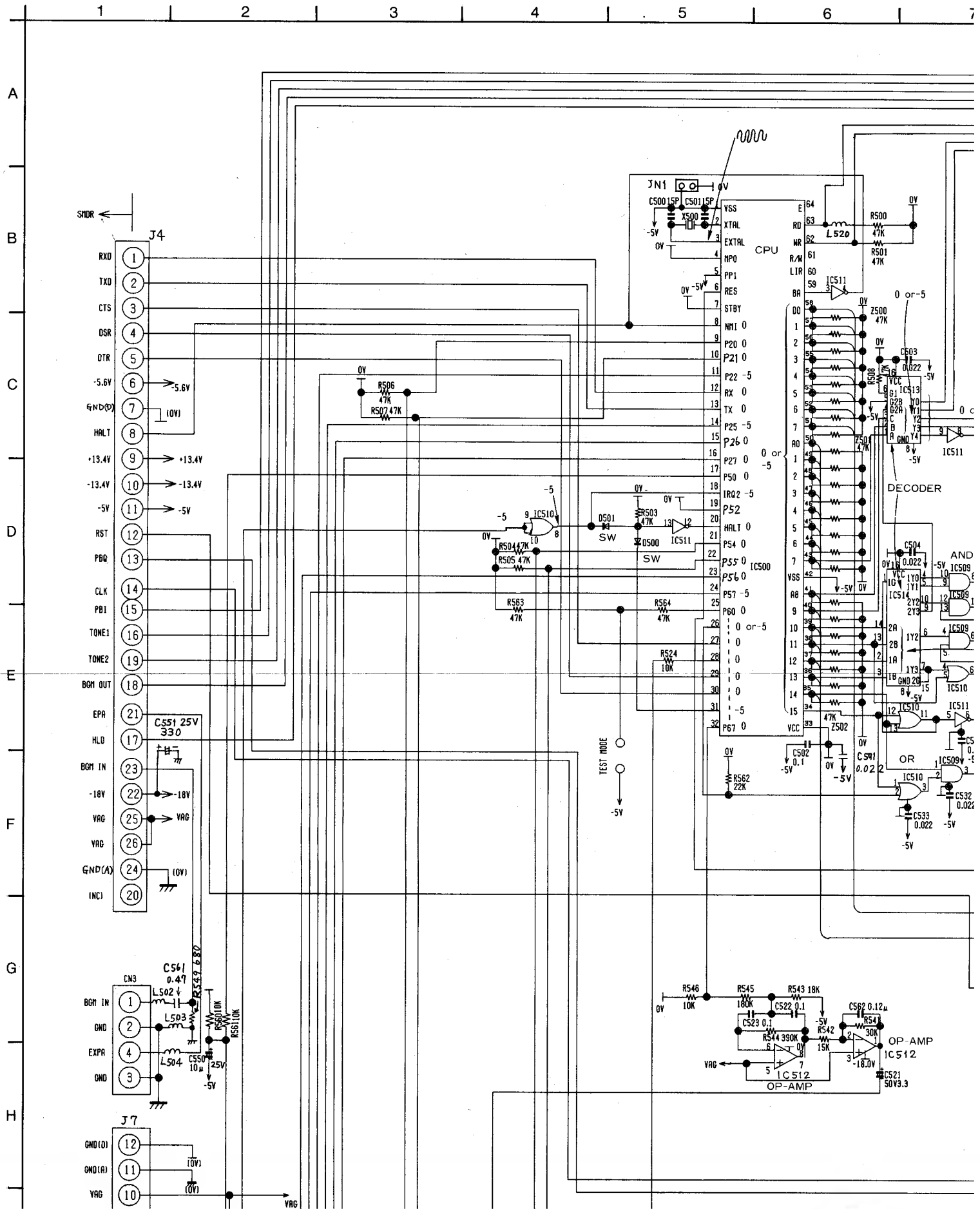
DL 2







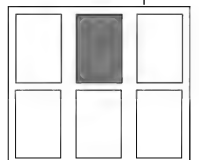
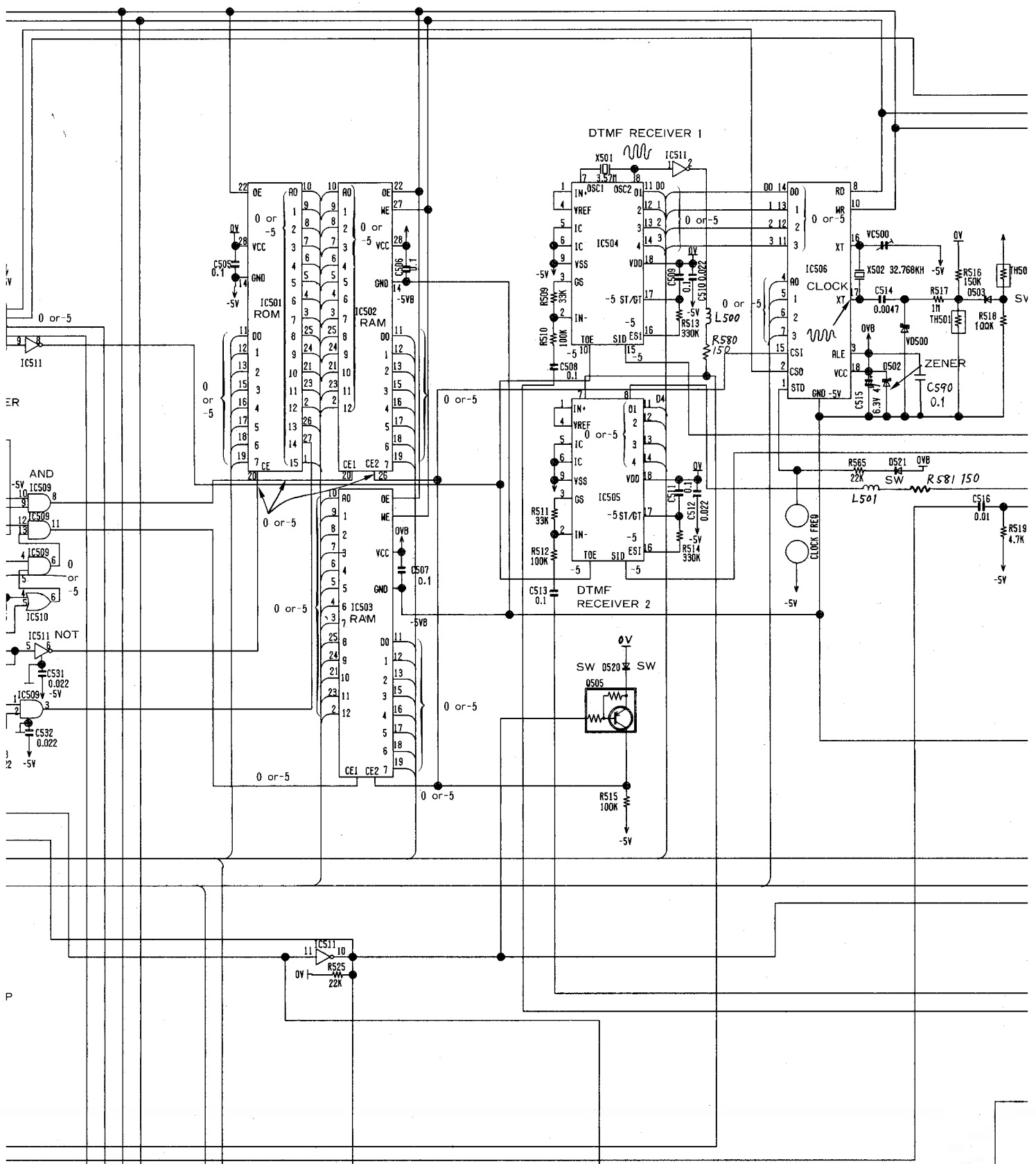


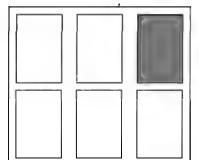
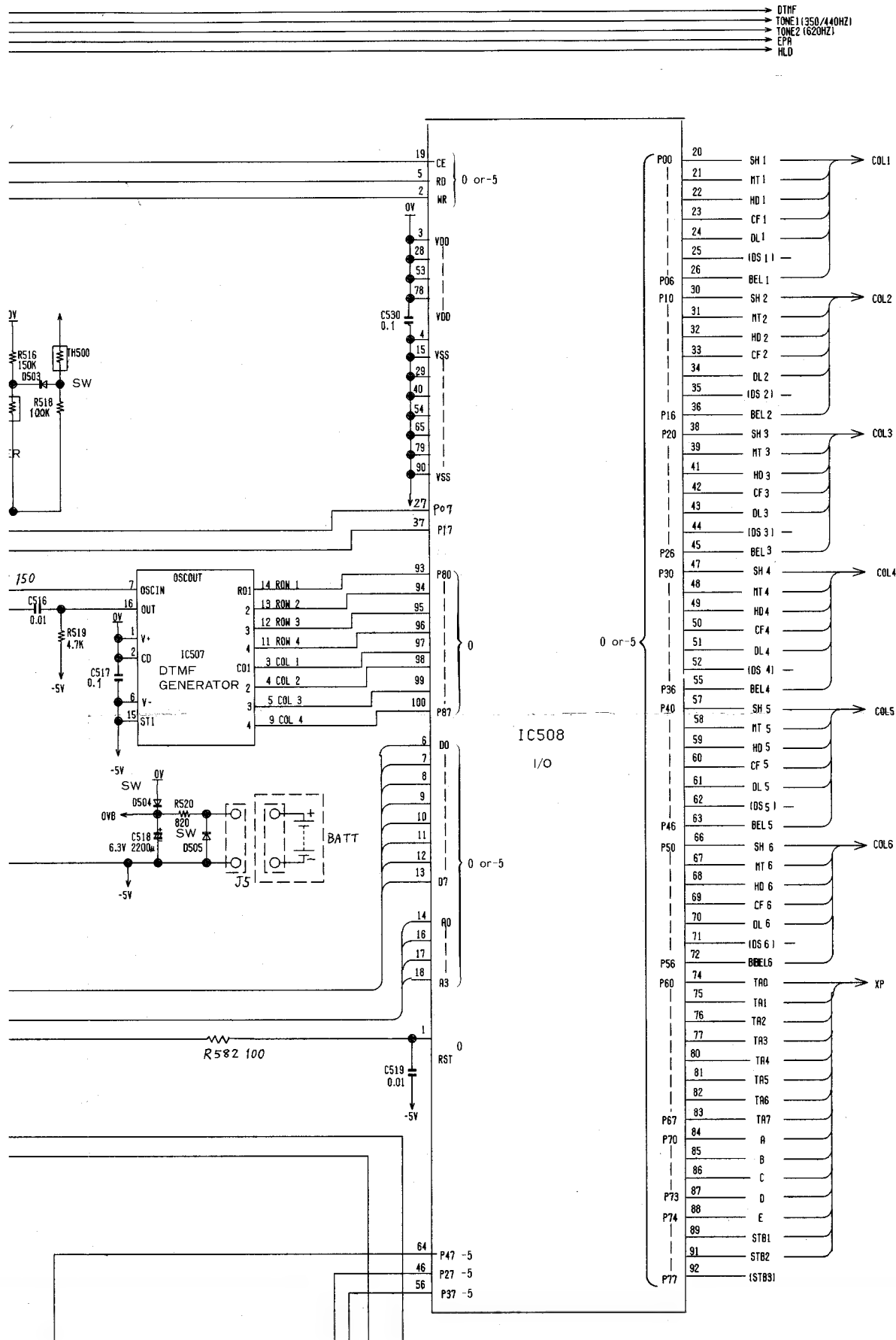


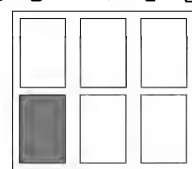
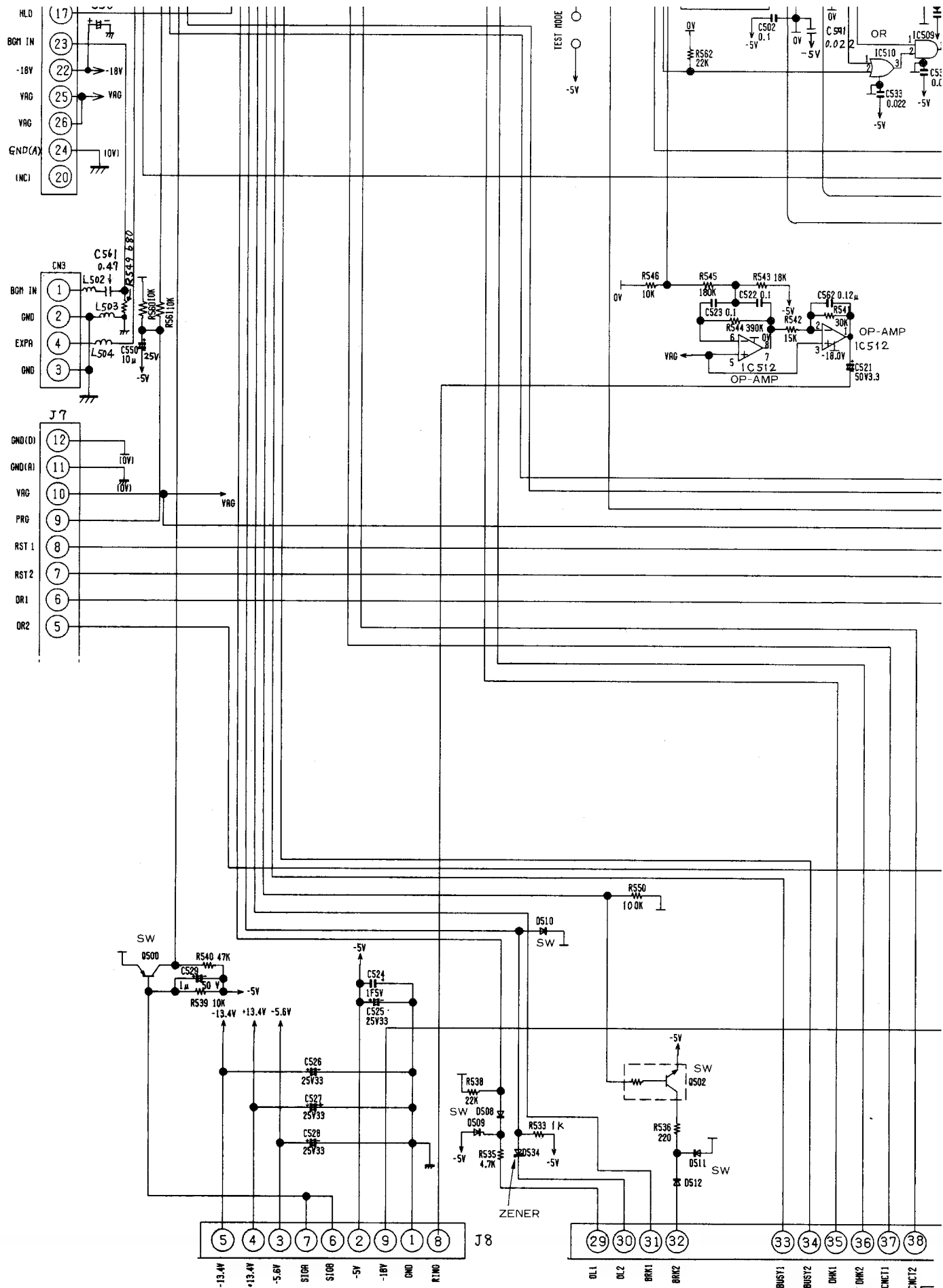


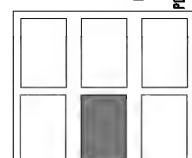
# SCHEMATIC DIAGRAM

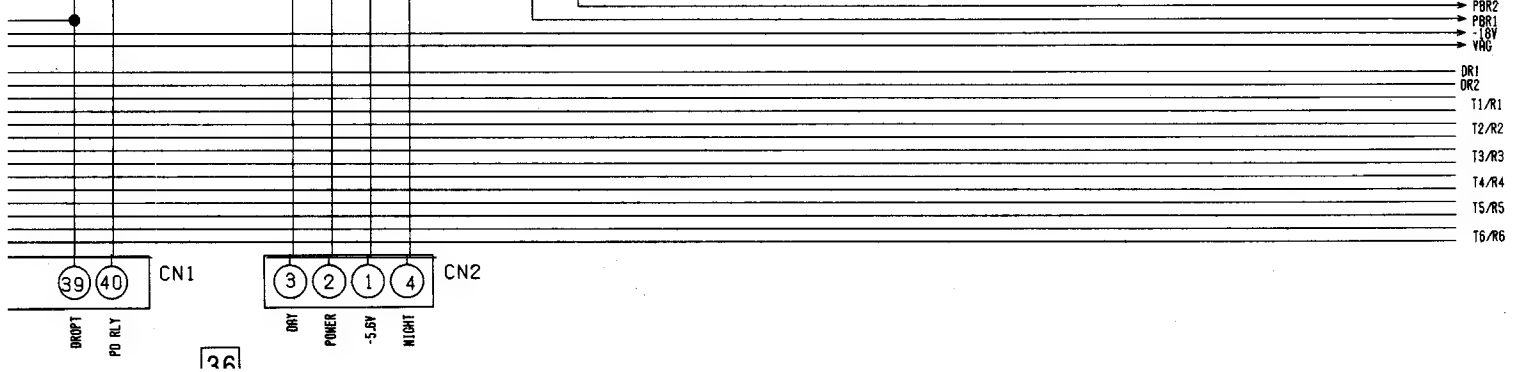
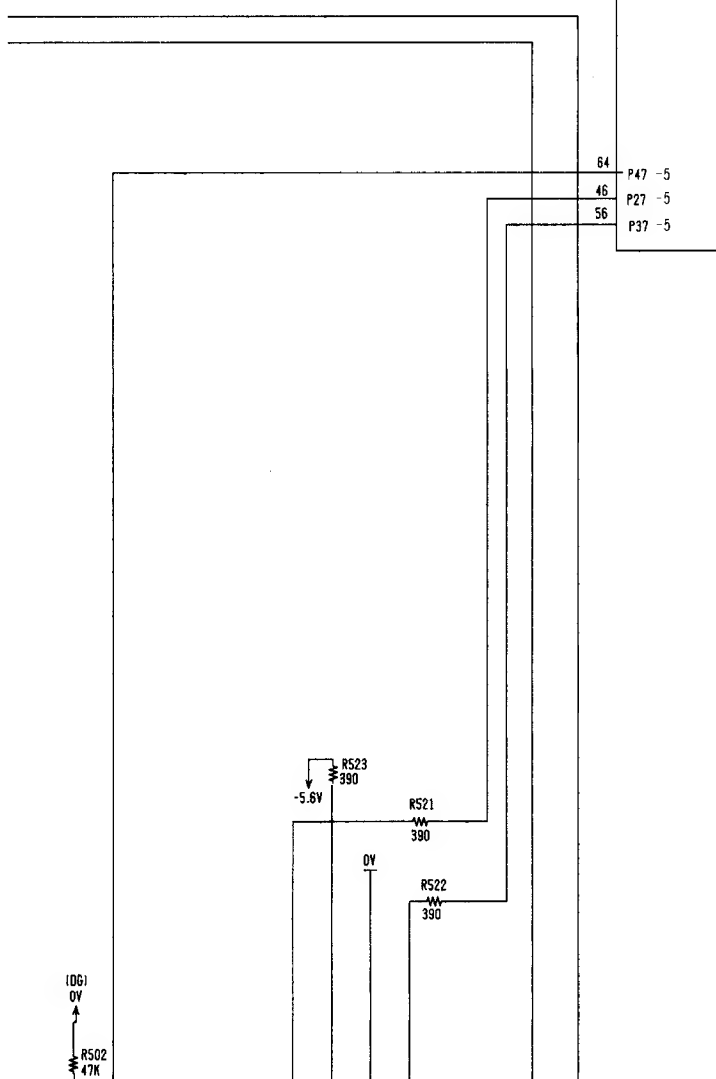
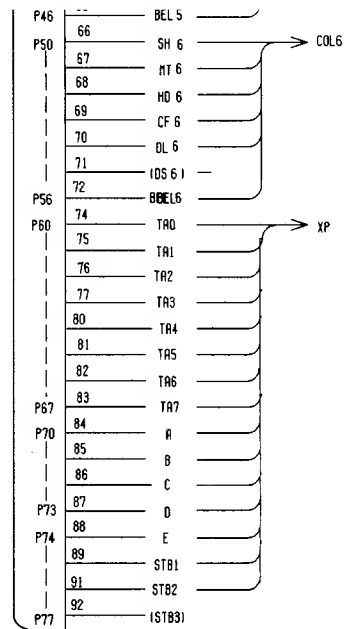
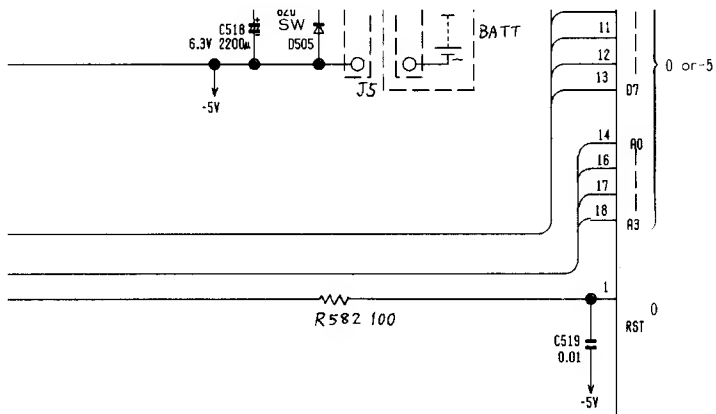
MAIN-B BOARD



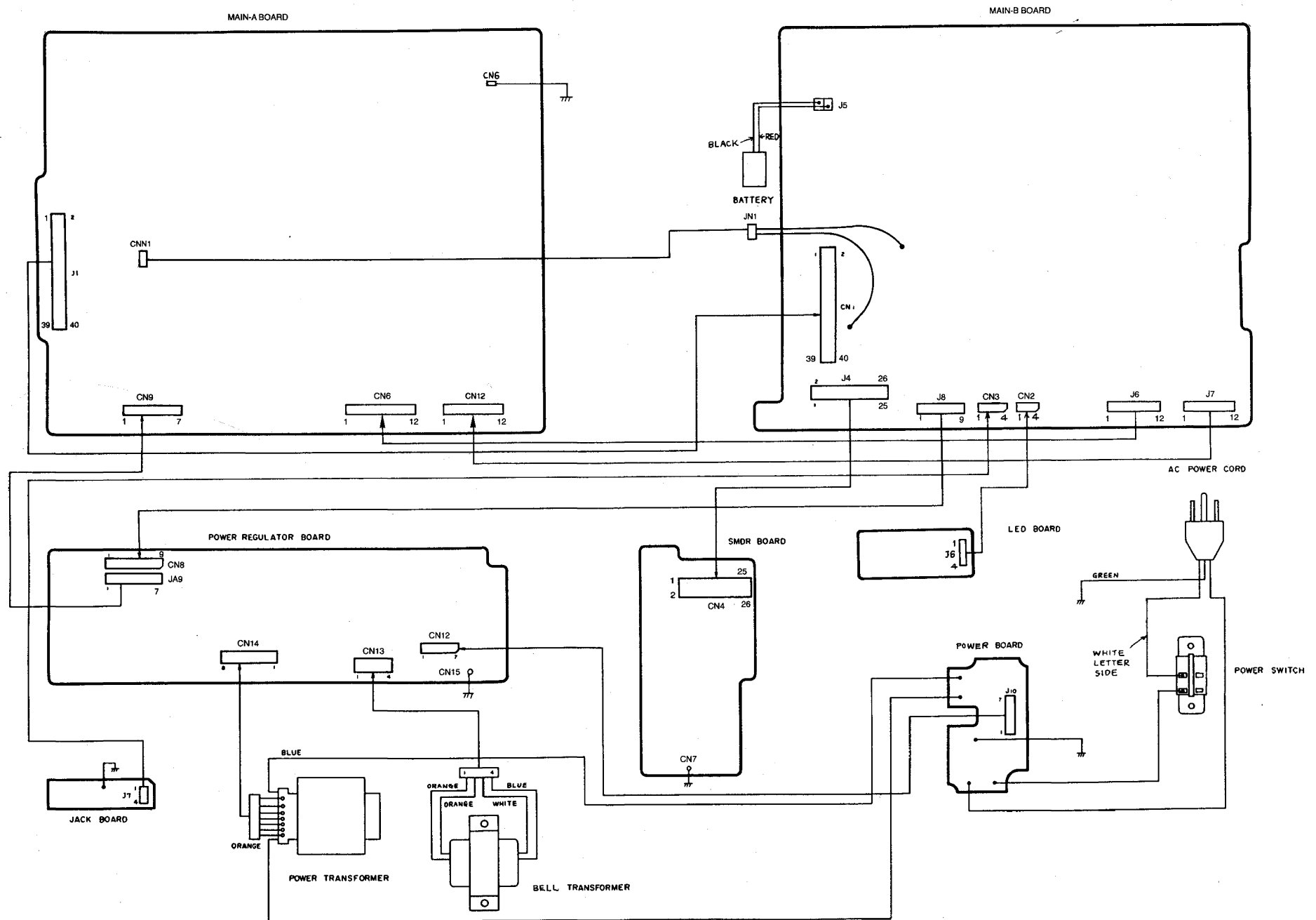






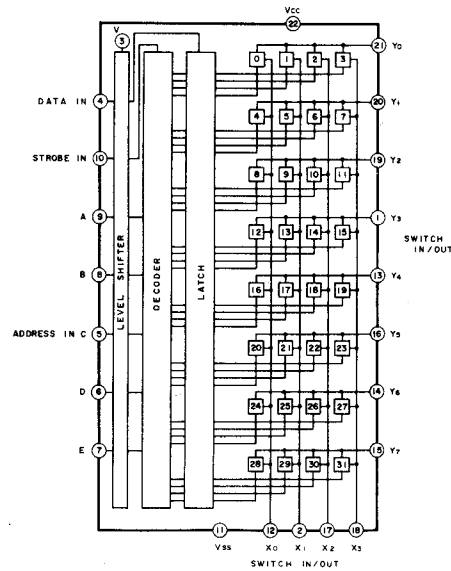


# WIRING CONNECTION DIAGRAM

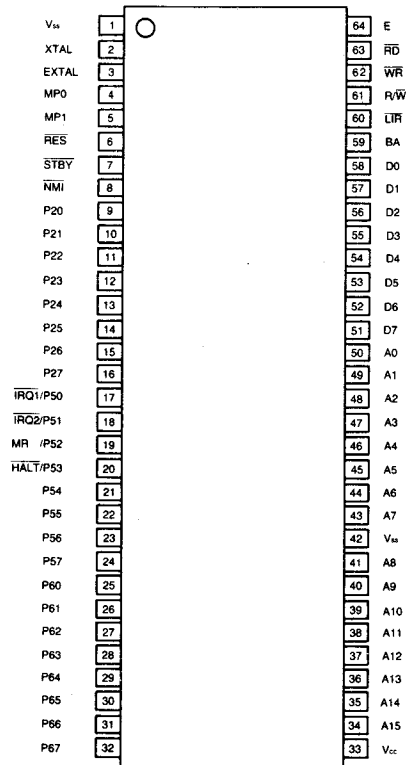


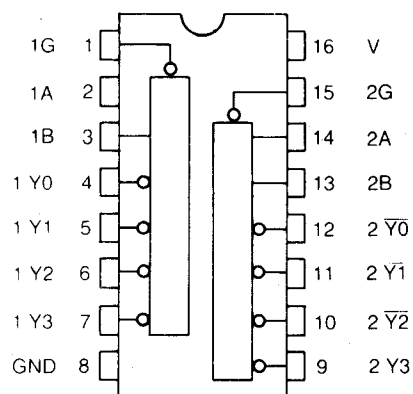
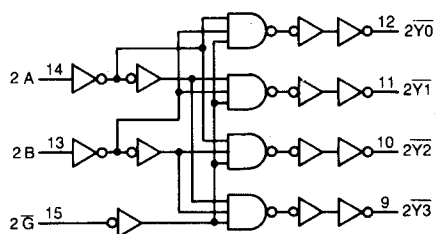
# IC BLOCK DIAGRAM

IC400~412 PQVIM402101P



IC500 PQVIH63B03XP



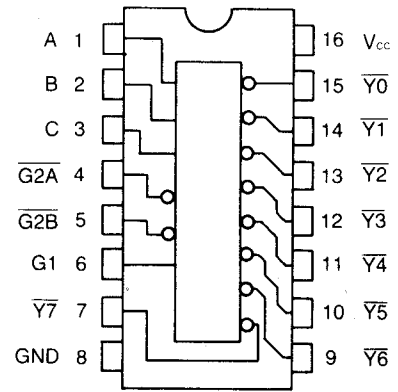
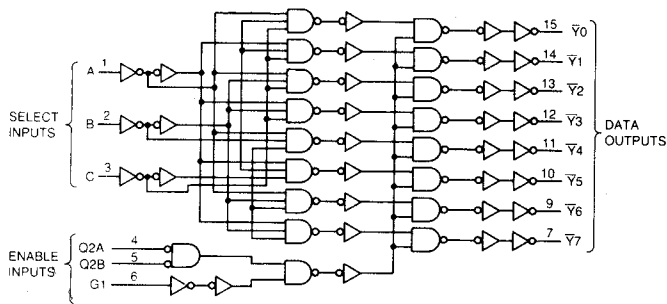
[illegible]

The block diagram illustrates the internal architecture and external connections of the 6800 microprocessor. Key components include:

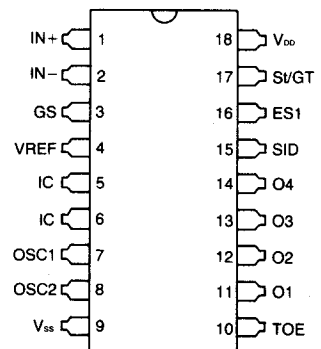
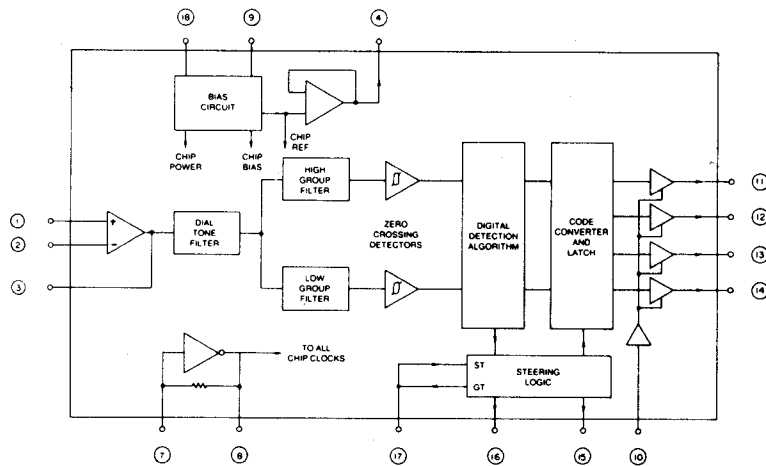
- Internal Components:** ROM (64 word x 8 page x 8 bit), PC (Program Counter), PA (Program Address), PB (Program Buffer), STACK (2 LEVEL), PAGE-ADD RESSTACK (2 LEVEL), INSTRUCTION DECODER, R-LATCHES, RAM (6 word x 1 page x 4 bit), DECODER, MUX (Multiplexer), ALU (Arithmetic Logic Unit), Y-reg (Y-register), Acc (Accumulator), and ST (Status Register).
- External Connections:**
  - Power:** INIT (2), VDD (16), and GND (3) pins are connected to a POWER ON RESET block.
  - Addressing:** Pins (4) through (13) are used for address signals, including R<sub>0</sub> through R<sub>9</sub>.
  - Control:** OSC<sub>1</sub> (15), OSC<sub>2</sub> (14), and HALT (1) pins are connected to the OSC (Oscillator) block.



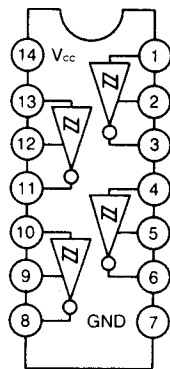
IC513 PQVITC7H138P



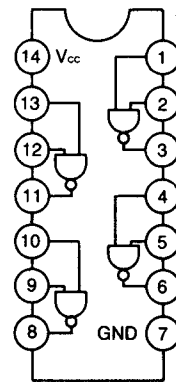
IC504, 505 PQVIMT8870BC



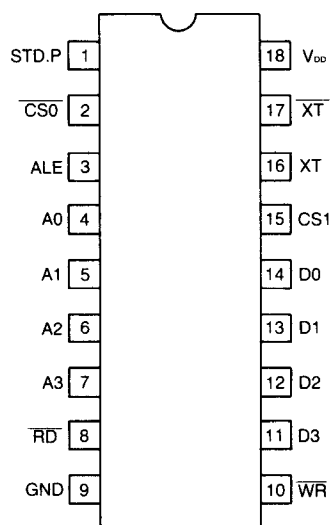
IC600 PQVIHD75189P



IC601 PQVIHD75188P

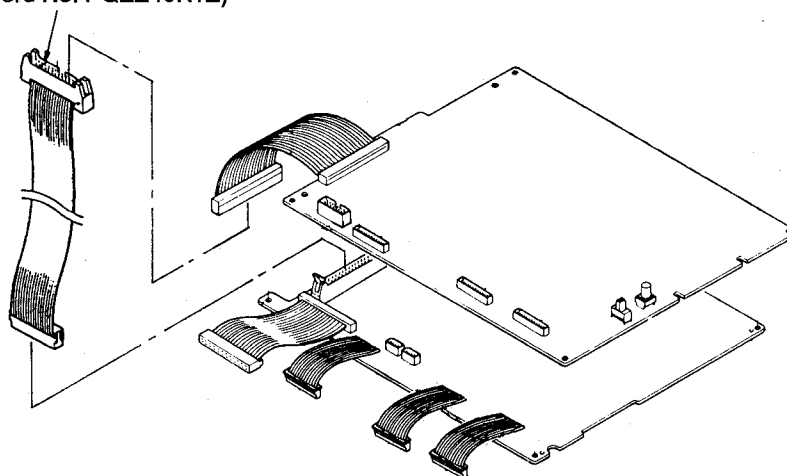


# IC506 PQVIMS6242BS



## EXTENSION CORD CONNECTING METHOD

Extension Cord  
(Cord No. PQZZ40K1Z)



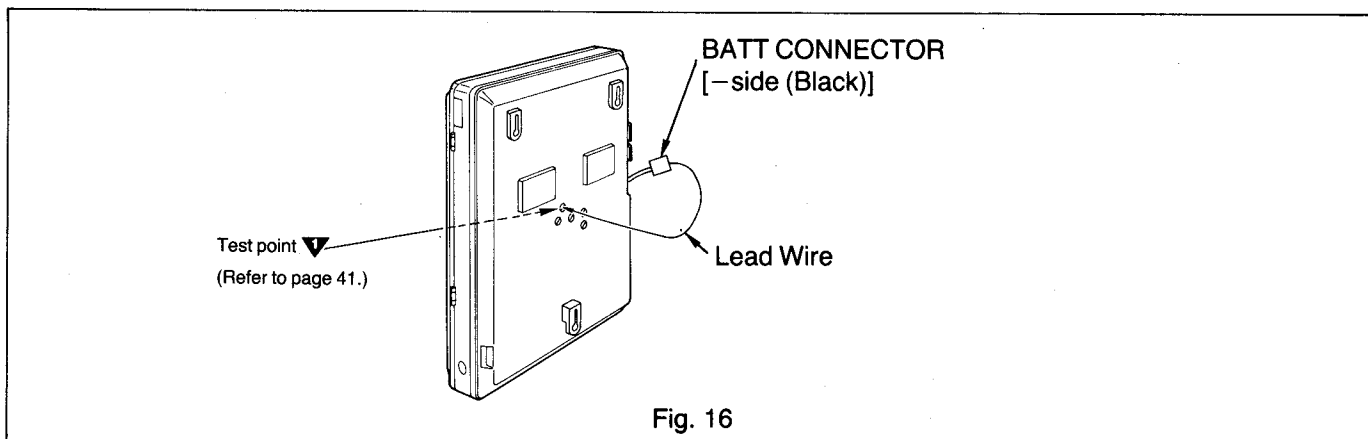
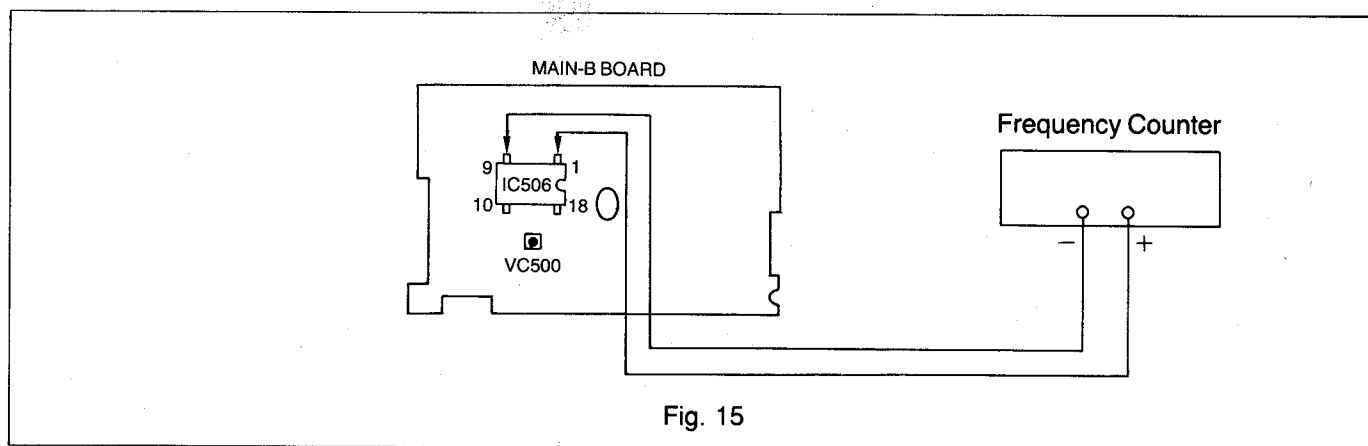
# ADJUSTMENTS

## ■ OSCILLATION PERIOD ADJUSTMENT

Perform the following adjustment after replacing IC506 and VC500.

1. Connect the AC cord to the AC power source.
2. Set the power switch to ON.
3. Connect the lead wire. (See Fig. 16)  
(After adjustment, remove the lead wire.)
4. Push the reset switch.
5. Connect the frequency counter. (See Fig. 15)
6. Set the frequency counter to PERIOD.
7. Adjust VC500 for a reading of ( ) msec on the frequency counter.

| Room temperature for adjusting (°C) | Period value (msec)         | Room temperature for adjusting (°C) | Period value (msec)         |
|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| 14~14.9                             | 15.624943 ( $\pm 0.00001$ ) | 20~20.9                             | 15.624880 ( $\pm 0.00001$ ) |
| 15~15.9                             | 15.624933 ( $\pm 0.00001$ ) | 21~21.9                             | 15.624876 ( $\pm 0.00001$ ) |
| 16~16.9                             | 15.624922 ( $\pm 0.00001$ ) | 22~27.9                             | 15.624870 ( $\pm 0.00001$ ) |
| 17~17.9                             | 15.624910 ( $\pm 0.00001$ ) | 28~28.9                             | 15.624876 ( $\pm 0.00001$ ) |
| 18~18.9                             | 15.624899 ( $\pm 0.00001$ ) | 29~29.9                             | 15.624880 ( $\pm 0.00001$ ) |
| 19~19.9                             | 15.624888 ( $\pm 0.00001$ ) |                                     |                             |



# EXPLODED VIEW

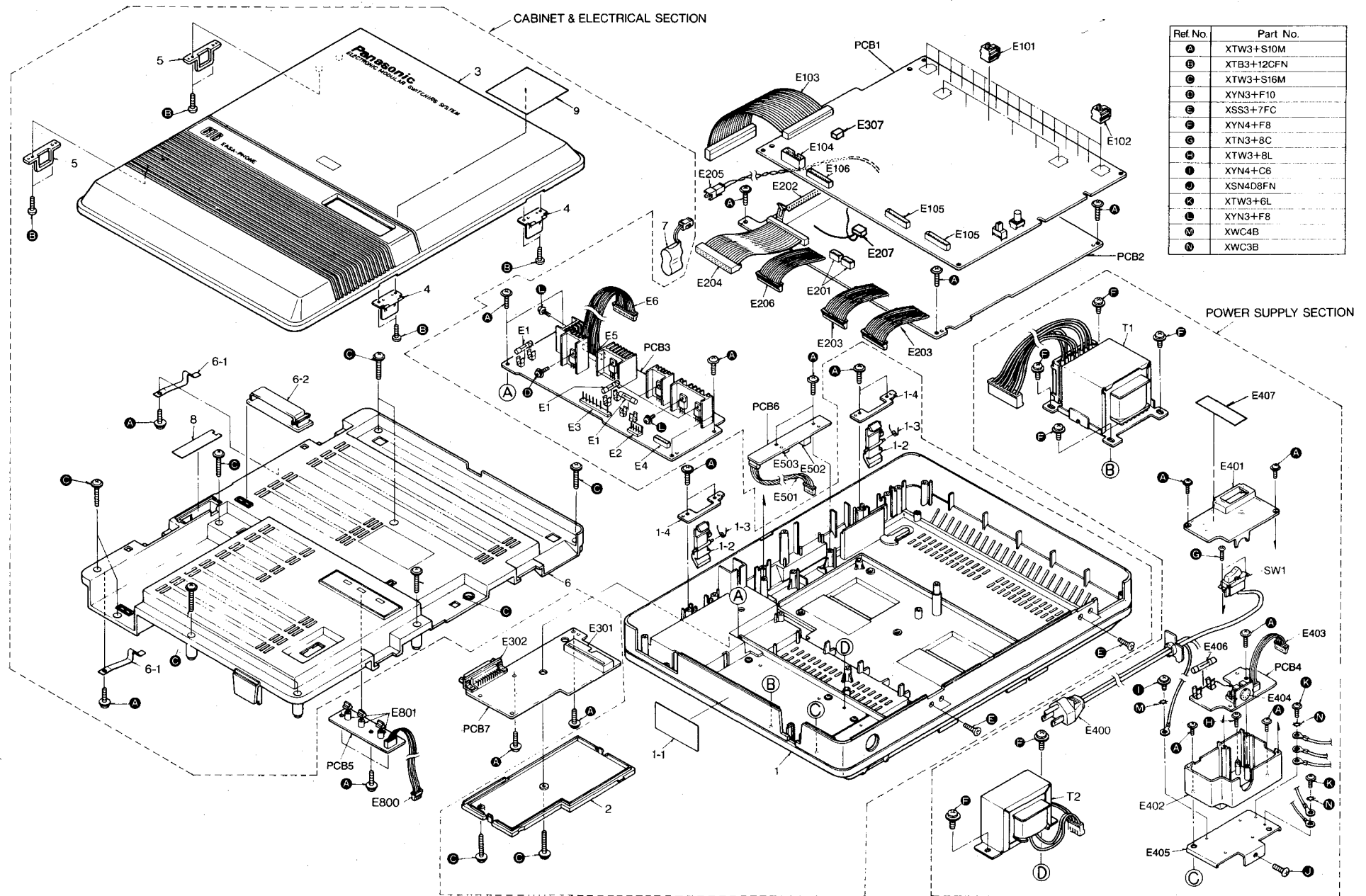


Fig. 17

## ACCESSORIES & PACKING MATERIALS

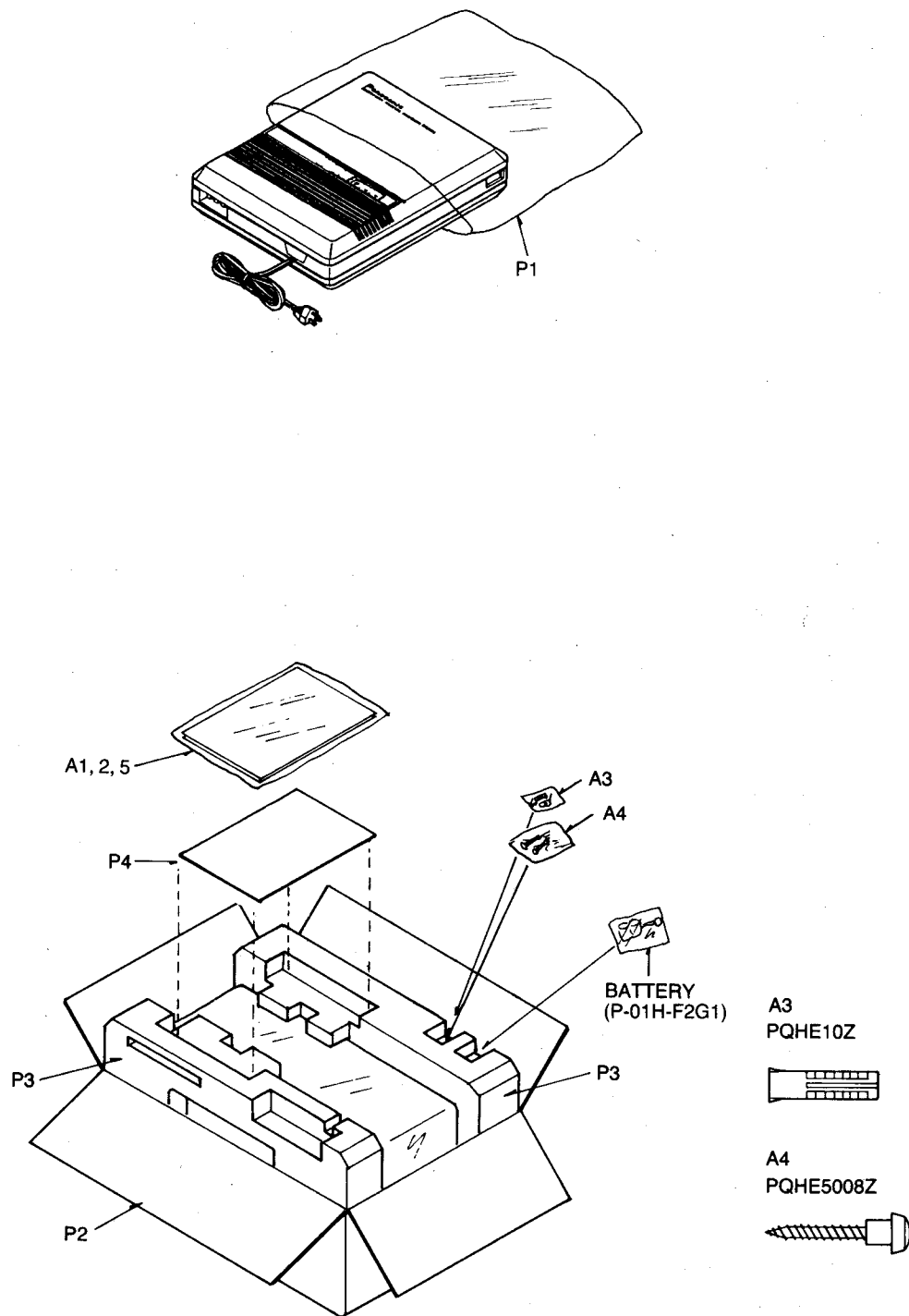


Fig. 18

# REPLACEMENT PARTS LIST

Notes:

Model KX-T61610-1

- Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.
- Important safety notice.  
Components identified by the  $\Delta$  mark special characteristics important for safety.  
When replacing any of these components, use only manufacturer's specified parts.
- The S mark indicates service standard parts and may differ from production parts.
- RESISTORS & CAPACITORS  
Unless otherwise specified.  
All resistors are in ohms ( $\Omega$ )  $k=1000\Omega$ ,  $M=1000k\Omega$   
All capacitors are in MICRO FARADS ( $\mu F$ )  $P=0.001\mu F$   
\*Type & Wattage of Resistor

Type

|            |                 |                |
|------------|-----------------|----------------|
| ERC:Solid  | ERX:Metal Film  | PQRD:Carbon    |
| ERD:Carbon | ERG:Metal Oxide | PQRQ:Fuse      |
| PQ4R:Chip  | ERO:Metal Film  | ERF:Wire Wound |

Wattage

|               |               |               |      |      |      |
|---------------|---------------|---------------|------|------|------|
| 10,16,18:1/8W | 14,25,S2:1/4W | 12,50,S1:1/2W | 1:1W | 2:2W | 5:5W |
|---------------|---------------|---------------|------|------|------|

\*Type & Voltage of Capacitor

Type

|                     |                                     |
|---------------------|-------------------------------------|
| ECFD:Semi-Conductor | ECCD,ECKD,PQCBP,PQVP: Ceramic       |
| ECQS:Styrol         | ECQM,ECQV,ECQE,ECQU,ECQB: Polyester |
| PQCBX,ECUV:Chip     | ECEA,ECSZ,ECOS: Electrolytic        |
| ECMS:Mica           | ECQP: Polypropylene                 |

Voltage

| ECQ Type  | ECQG    | ECSZ Type | Others    |           |  |
|-----------|---------|-----------|-----------|-----------|--|
| ECQV Type |         |           |           |           |  |
| 1H: 50V   | 05: 50V | OF:3.15V  | OJ :6.3V  | 1V :35V   |  |
| 2A:100V   | 1:100V  | 1A:10V    | 1A :10V   | 50,1H:50V |  |
| 2E:250V   | 2:200V  | 1V:35V    | 1C :16V   | 1J :63V   |  |
| 2H:500V   |         | OJ:6.3V   | 1E,25:25V | 2A :100V  |  |

| Ref. No.                          | Part No.     | Part Name & Description          | Pcs |
|-----------------------------------|--------------|----------------------------------|-----|
| CABINET & ELECTRICAL PARTS        |              |                                  |     |
| 1                                 | PQYMT61610M1 | Rear Cabinet Assembly            | 1   |
| 1-1                               | PQGT384Z     | Name Plate                       | 1   |
| 1-2                               | PQHR9120Z8   | Hook                             | 2   |
| 1-3                               | PQUS91Z      | Spring, Hook                     | 2   |
| 1-4                               | PQUL51Z      | Bracket, Hook                    | 2   |
| 2                                 | PQKE31Z8     | Cabinet Door                     | 1   |
| 3                                 | PQYF1T61610M | Front Cabinet Assembly           | 1   |
| 4                                 | PQBH2Z       | Hinge                            | 2   |
| 5                                 | PQHR9121Z8   | Hinge                            | 2   |
| 6                                 | PQYF2T61610M | Inside Cover Assembly            | 1   |
| 6-1                               | PQUS102Z     | Leaf Spring                      | 2   |
| 6-2                               | PQHR5044Z    | Cord Holder                      | 1   |
| 7                                 | P-01H-F2G1   | Battery                          | 1   |
| 8                                 | PQUV50Z      | Battery Cover                    | 1   |
| 9                                 | PQQT4134Z    | Label, Front Cabinet             | 1   |
| ACCESSORIES AND PACKING MATERIALS |              |                                  |     |
| A1                                | PQQX5341Z    | Installation Manual              | 1   |
| A2                                | PQQX5367Z    | User Guide                       | 1   |
| A3                                | PQHE10Z      | Mounting Bracket (Curl Plug)     | 3   |
| A4                                | PQHE5008Z    | Mounting Bracket (Screw)         | 3   |
| A5                                | PQQX5402Z    | User Guide (for KX-T30830/30820) | 1   |
| P1                                | XZB45X06A05  | Protection Cover                 | 1   |
| P2                                | PQPK431Y     | Packing Case                     | 1   |
| P3                                | PQPN9036Z    | Pad Complete (L,R Side)          | 1   |
| P4                                | PQPN668Z     | Pad                              | 1   |

| Ref. No.                                    | Part No.     | Part Name & Description                      | Pcs  |
|---|--------------|--|------|
| MAIN-A BOARD PARTS                          |              |  |      |
| PCB1  | PQWP161610M1 | Main-A P.C. Board Assy (NLA)                 | 1    |
| IC300,301                                   | PQVI671152F  | (ICs)<br>IC                                  | 2    |
| Q300A-300P                                  | 2SB644       | (TRANSISTORS)<br>Transistor (Si)             | 16   |
| Q301A-301P                                  | 2SD639       | Transistor (Si)                              |      |
| Q302A-302P                                  | PQVTDTC114Y  | Transistor (Si)                              | S 16 |
| Q303A-303P                                  | DTA143A      | Transistor (Si)                              | S 16 |
| Q304A-304P                                  | 2SC2021      | Transistor (Si)                              | 24   |
| ,305I-305P                                  |              |  |      |
| Q305A-305H                                  | 2SA937       | Transistor (Si)                              | 9    |
| ,307  |              |  |      |
| Q306  | 2SB1015      | Transistor (Si)                              | 1    |
| Q308  | 2SD1406      | Transistor (Si)                              | 1    |
| Q309  | DTC124XA     | Transistor (Si)                              | 1    |
| Q310,311, ,312                              | DTA124EA     | Transistor (Si)                              | 3    |
| D300I-300P                                  | 1SS131       | (DIODES)<br>Diode (Si)                       | 162  |
| ,301A-301P                                  | 1SS131       | Diode (Si)                                   |      |
| ,302A-302P                                  |              |  |      |
| ,303A-303P                                  |              |  |      |
| ,304A-304P                                  |              |  |      |
| ,305A-305P                                  |              |  |      |
| ,309A-309P                                  |              |  |      |
| ,310A-310P                                  |              |  |      |
| ,311A-311P                                  |              |  |      |
| ,312A-312P                                  |              |  |      |
| ,313-322                                    |              |  |      |
| D306A-306P                                  | MA4047       | Diode (Si)                                   | 16   |
| ,307A-307P                                  |              |  |      |
| D308A-308P                                  | MA4030       | Diode (Si)                                   | 16   |
| SA30A-30F                                   | PQVDSAE310F1 | (VARISTORS)<br>Varistor (Surge Absorber)     | S 12 |
| ,31A-31F                                    |              |  |      |
| ZNR30A-30P                                  | ERZC03DK241  | Varistor                                     | 32   |
| ,31A-31P                                    |              |  | 1    |
| PC300A-PC300P                               | PQVITLP521   | (PHOTO ELECTRIC TRANSDUCER)<br>Photo Coupler | 16   |
|   |              |  | 1    |
| Z300,301 ,303                               | EXBP88222K   | (COMPONENTS COMBINATIONS)<br>Resistor Array  | S 3  |
| Z302  | PQRS8B8102J  | Resistor Array                               | 1    |
| Z304,305                                    | EXBP88473K   | Resistor Array                               | S 2  |
| L30A-30F, ,31A-31F                          | PQLQZK101K   | (COILS)<br>Choke Coil                        | 12   |
| L32A-32F, ,33A-33F                          | PQLQZM100K   | Choke Coil                                   | 12   |
| L300A-300P ,301A-301P ,302A-302P ,303A-303P | PQLQZM2R2M   | Choke Coil                                   | 64   |

| Ref. No.   | Part No.     | Part Name & Description                    | Pcs  |
|------------|--------------|--|------|
| T300A-300P | ETA14Y85AY   | (TRANSFORMERS)<br>Interface Transformer    | 16   |
| T301A-301P | ETE13K38AY   | Pulse Transformer                          | 16   |
| X300       | PQVCX4000N8Z | (CRYSTAL OSCILLATOR)<br>Crystal Oscillator | 1    |
| SW2        | PQSH1A12Z    | (SWITCHES)<br>Switch, Reset                | 1    |
| SW3        | PQSS2A20Z    | Switch, System Program                     | 1    |
| RLY10A-10F | PQSL49Z      | (RELAYS)<br>Relay                          | 6    |
| RLY30A-30P | PQSL41Z      | Relay                                      | 16   |
| C300A-300P | ECEA1HU3R3   | (CAPACITORS)<br>3.3                        | S 32 |
| ,301A-301P |              |  |      |
| C302A-302P | ECEA1HU2R2   | 2.2  | 16   |
| C303A-303P | ECKD1H472MD  | 0.0047                                     | 32   |
| ,304A-304P |              |  |      |
| C305A-305P | ECEA1HUR47   | 0.47                                       | 16   |
| C306A-306P | ECEA1HU010   | 1  | 32   |
| ,307A-307P |              |  |      |
| C309, 313  | ECCD1H221J   | 220P                                       | 2    |
| C310,311   | ECCD1H470KC  | 47P  | 2    |
| C314,315   | ECEA1EU101   | 100  | 2    |
| C317,322   | ECEA1VU101   | 100  | 2    |
| C318-321   | ECEA1VU330   | 33   | S 4  |
| C330A-330F | ECKDKC222KB  | 0.0022                                     | 6    |
| C340,341   | ECEA1VSS222  | 2200                                       | 2    |
| C360,363   | ECQV1H104JZ  | 0.1  | 2    |
| C361,362   | ECKD1H223MD  | 0.022                                      | 2    |
| C365A-365P | ECUV1H224ZF  | 0.22                                       | 16   |
| C370       | ECEA1CU102   | 1000                                       | 1    |
| R300A-300P | PQ4R10XJ220  | (RESISTORS)<br>22                          | 32   |
| ,301A-301P |              |  |      |
| R302A-302P | PQ4R10XJ682  | 6.8k                                       | 32   |
| ,303A-303P |              |  |      |
| R304A-304P | PQRD2TJ102   | 1k   | S 16 |
| R305A-305P | PQ4R10XJ470  | 47   | 16   |
| R306A-306P | PQ4R10XJ154  | 150k                                       | 16   |
| R307A-307P | PQ4R10XJ103  | 10k  | 16   |
| R308A-308P | PQ4R10XJ561  | 560  | 16   |
| R309-312   | ERD16TJ154   | 150k                                       | 4    |
| R313       | ERD16TJ105   | 1M   | 1    |
| R314,315   | ERD16TJ103   | 10k  | 2    |
| R316       | ERD16TJ104   | 100k                                       | 1    |
| R317       | ERD16TJ393   | 39k  | 1    |
| R318       | ERD16TJ821   | 820  | 1    |
| R319       | ERD16TJ181   | 180  | 1    |
| R320, 370, | ERD16TJ101   | 100  | 18   |
| ,321A-321P |              |  |      |
| R322A-322P | PQ4R10XJ3R3  | 3.3  | 16   |
| R323A-323P | PQ4R10XJ472  | 4.7k                                       | 16   |
| R324A-324P | PQ4R10XJ121  | 120  | 32   |
| ,325A-325P |              |  |      |
| R326A-326P | PQ4R10XJ222  | 2.2k                                       | 16   |
| R360A-360P | PQ4R10XJ820  | 82   | 16   |
| R375       | ERD16TJ220   | 22   | 1    |

| Ref. No.           | Part No.     | Part Name & Description          | Pcs  |
|--------------------|--------------|----------------------------------|------|
| E301               | PQJJ1TA3Y    | (OTHERS)<br>Jack, CO (MJ1A-MJ1F) | 6    |
| E302               | PQJJ1TB16Z   | Jack, EXT (MJ2A-MJ2P)            | 16   |
| E303               | PQJS40R30Z   | Connector Socket, 40P (J1)       | 1    |
| E304               | PQJP14D49Z   | Connector Plug, 14P (CN10)       | 1    |
| E305               | PQJP12D68Z   | Connector Plug, 12P (CN6,7)      | 2    |
| E306               | PQJP7D68Z    | Connector Plug, 7P (CN9)         | 1    |
| E307               | PQJP2D72Z    | Connector Plug, 2P (CNN1)        | 1    |
| MAIN-B BOARD PARTS |              |                                  |      |
| PCB2               | PQWP261610M1 | Main-B P.C.Board Ass'y (NLA)     | 1    |
| IC200A-<br>IC200F  | PQVINJM4558M | (ICs)<br>IC                      | 6    |
| IC201A-<br>IC201F  | PQVITC4066BF | IC                               | 6    |
| IC400-412          | PQVIM402101P | IC                               | 13   |
| IC413,414          | PQVITD62706P | IC                               | 2    |
| IC426,512          | PQVINJM4558D | IC                               | 2    |
| IC500              | PQVIH63B03XP | IC                               | 1    |
| IC501              | PQWIT61610M2 | IC                               | 1    |
| IC502,503          | PQVIHM6264LA | IC                               | 2    |
| IC504,505          | PQVIMT8870BC | IC                               | S 2  |
| IC506              | PQVIMS6242BS | IC                               | 1    |
| IC507              | PQVILR4089   | IC                               | 1    |
| IC508              | PQVI63HB110  | IC                               | 1    |
| IC509              | PQVITC7H08P  | IC                               | 1    |
| IC510              | PQVITC7H32P  | IC                               | 1    |
| IC511              | PQVITC7H04P  | IC                               | S 1  |
| IC513              | PQVITC7H138P | IC                               | S 1  |
| IC514              | PQVITC7H139P | IC                               | 1    |
| Q201A-201F         | DTA124XA     | (TRANSISTORS)<br>Transistor (Si) | 27   |
| ,202A-202F         |              |                                  |      |
| ,203A-203F         |              |                                  |      |
| ,204A-204F         |              |                                  |      |
| ,400,401,402       |              |                                  |      |
| Q205A-205F         | 2SA1626      | Transistor (Si)                  | △ 6  |
| Q206A-206F         | 2SC2590      | Transistor (Si)                  | △ 6  |
| Q210A-210F         | DTA144A      | Transistor (Si)                  | S 7  |
| ,505               |              |                                  |      |
| Q500               | 2SA937       | Transistor (Si)                  | 1    |
| Q502               | PQVTDTC114Y  | Transistor (Si)                  | S 1  |
| Q503,504           | 2SC2021      | Transistor (Si)                  | 2    |
| D200A-200F         | 1SS131       | (DIODES)<br>Diode (Si)           | △ 24 |
| ,201A-201F         |              |                                  |      |
| ,500,501           |              |                                  |      |
| ,503,504           |              |                                  |      |
| ,505,508-          |              |                                  |      |
| ,512,520           |              |                                  |      |
| ,521               |              |                                  |      |
| D203A-203F         | PQVDHVS2B1   | Diode (Si)                       | △ 6  |
| D204A-204F         | MA4047       | Diode (Si)                       | 12   |
| ,205A-205F         |              |                                  |      |
| D210A-210F         | PQVDS1YB40F1 | Diode (Si)                       | △ 6  |
| D400               | MA4091       | Diode (Si)                       | 1    |
| D502               | MA4062       | Diode (Si)                       | 1    |
| D506               | MA4036       | Diode (Si)                       | 1    |
| D534               | PQVDMTZ15A   | Diode (Si)                       | 1    |
| VD500              | PQVD1SV124   | Diode (Si)                       | 1    |

| Ref. No.   | Part No.  | Part Name & Description   | Pcs                     |
|--|---|---|-------------------------|
| ZNR200A-ZNR200F  | ERZC07DK820   | (VARISTORS)<br>Varistor   | 6                       |
| T200A-200F   | ETA14Y85AY  | (TRANSFORMERS)<br>Interface Transformer   | 6                       |
| Z500,501<br>,502   | EXBP88473K  | (COMPONENT COMBINATIONS)<br>Resistor Array  | 3                       |
| TH500<br>TH501   | PQRRTS203U<br>PQRRTS104U  | (THERMISTORS)<br>Thermistor<br>Thermistor   | 1<br>1                  |
| X500<br>X501<br>X502   | PQVCX7600N5Z<br>PQVCX3579H5R<br>PQVCL3276N4Z                            | (CRYSTAL OSCILLATORS)<br>Crystal Oscillator<br>Crystal Oscillator<br>Crystal Oscillator | 1<br>1<br>1             |
| SA200A-SA200F  | PQVDSAE310F1  | (VARISTORS)<br>Varistor (Surage Absorber)   | 6                       |
| VC500  | PQCVTZB30B  | (VARIABLE CAPACITOR)<br>Trimmer   | 1                       |
| L500-504<br>L520   | PQLQZM1R5M<br>PQLQZM2R2M  | (COILS)<br>Choke Coil<br>Choke Coil   | 5<br>1                  |
| PC200A-PC200F<br>PC201A-PC201F<br>PC202A-PC202F  | PQVIPC851K<br>PQVITLP521<br>PQVIPC814K                                  | (PHOTO ELECTRIC TRANSDUCERS)<br>Photo Coupler<br>Photo Coupler<br>Photo Coupler         | 6<br>6<br>6             |
| C201A-201F<br>C202A-202F<br>,563   | ECQE2E474MZ<br>ECEA1HU100   | (CAPACITORS)<br>0.47<br>10  | 6<br>7                  |
| C203A-203F<br>C205A-205F<br>C206A-206F<br>C207A-207F<br>C208A-208F<br>,209A-209F<br>,211A-211F<br>,215A-215F             | ECEA1HU220<br>ECEA1AU220<br>ECKD1H102KB<br>ECQV1H333JZ<br>ECQV1H563JZ   | 22<br>22<br>1000P<br>0.033<br>0.056   | 6<br>6<br>6<br>6<br>24  |
| C210A-210F<br>,214A-214F<br>C212A-212F<br>,213A-213F<br>,400<br>C220A-220F<br>,401<br>C230A-230F<br>C405-408<br>C500,501 | ECCD1H121KC<br>ECQM1H183JZ<br>ECUV1H121JC<br>ECQV1H273JZ<br>ECCD1H150JC | 120P<br>0.018<br>120P<br>0.027<br>15P   | 12<br>13<br>6<br>4<br>2 |

| Ref. No.   | Part No.     | Value  | Pcs  |
|--|--------------|--------|------|
| C502,505-<br>,509,511<br>,513,517<br>,522,523<br>,530,590                                      | ECQV1H104JZ  | 0.1    | 13   |
| C503,504<br>,510,512<br>,531,532<br>,533,591   | ECKD1H223MD  | 0.022  | 8    |
| C514   | ECQM1H472JV  | 0.0047 | 1    |
| C515   | ECEA1AU470   | 47     | S 1  |
| C516,519   | ECKD1H103MD  | 0.01   | 2    |
| C518   | ECEA0JSS222  | 2200   | 1    |
| C521   | ECEA1HU3R3   | 3.3    | 1    |
| C524   | EECW0HS105Z  | 1      | 1    |
| C525-528<br>,551   | ECEA1VU330   | 33     | S 5  |
| C529   | ECEA1HU010   | 1      | 1    |
| C550   | ECEA1EU100   | 10     | 1    |
| C561   | ECQV1H474JZ  | 0.47   | 1    |
| C562   | ECQV1H124JZ  | 0.12   | 1    |
| (RESISTORS)  |              |        |      |
| R200A-200F<br>,510,512<br>,515,518<br>,550   | ERD16TJ104   | 100k   | △ 11 |
| R201A-201F   | PQRD12VJ223  | 22k    | △ 6  |
| R202A-202F<br>,220A-220F<br>,223A-223F<br>,232A-232F<br>,233A-233F<br>,235A-235F<br>,237A-237F | ERD16TJ122   | 1.2k   | △ 43 |
| ,490   |              |        |      |
| R203A-203F   | ERD16TJ5R6   | 5.6    | △ 6  |
| R204A-204F<br>,524,528<br>,539,546<br>,547,560<br>,561   | ERD16TJ103   | 10k    | △ 13 |
| R205A-205F   | ERD25TJ390   | 39     | △ 6  |
| R206A-206F   | ERD10TLJ183  | 18k    | △ 6  |
| R207A-207F<br>,209A-209F<br>,210A-210F<br>,519,535   | ERD16TJ472   | 4.7k   | △ 20 |
| R208A-208F   | ERD16TJ392   | 3.9k   | △ 6  |
| R221A-221F   | ERD16TJ152   | 1.5k   | 6    |
| R222A-222F<br>,234A-234F<br>,236A-236F   | ERD16TJ471   | 470    | 18   |
| R224A-224F<br>,225A-225F<br>,230A-230F<br>,231A-231F   | ER016CKF1003 | 100k   | 24   |
| R226A-226F<br>,227A-227F<br>,228A-228F<br>,229A-229F   | ER016CKF3003 | 300k   | 24   |
| R238A-238F<br>,239A-239F<br>,240A-240F<br>,470-484<br>,500-508<br>,540,563<br>,564             | ERD16TJ473   | 47k    | 45   |



| Ref. No.   | Part No.     | Part Name & Description      | Pcs |
|--|--------------|------------------------------|-----|
| R241A-241F<br>,250A-250F<br>,255A-255F<br>,525,538<br>,562,565 | ERD16TJ223   | 22k                          | 22  |
| R242A-242F   | ERD16TJ823   | 82k                          | 6   |
| R260A-260F   | PQ4R18XJ821  | 820                          | 6   |
| R400-407   | ER016CKF1151 | 1.15k                        | 8   |
| R408-423   | ER016CKF49R9 | 49.9                         | 16  |
| R424-439   | ER016CKF1101 | 1.1k                         | 16  |
| R456-459   | ER016CKF6491 | 6.49k                        | 4   |
| R460,461   | ERD16TJ182   | 1.8k                         | 2   |
| R509,511   | ERD16TJ333   | 33k                          | 2   |
| R513,514   | ERD16TJ334   | 330k                         | 2   |
| R516   | ERD16TJ154   | 150k                         | 1   |
| R517   | ERD16TJ105   | 1M                           | 1   |
| R520   | ERD16TJ821   | 820                          | 1   |
| R521,522<br>,523   | ERD16TJ391   | 390                          | 3   |
| R526   | ERD16TJ561   | 560                          | 1   |
| R527,549   | ERD16TJ681   | 680                          | 2   |
| R529   | ERD16TJ222   | 2.2k                         | 1   |
| R530   | ERD16TJ683   | 68k                          | 1   |
| R533   | ERD16TJ102   | 1k                           | 1   |
| R536   | ERD16TJ221   | 220                          | 1   |
| R541   | ER016CKF3002 | 30k                          | 1   |
| R542   | ERD16TJ153   | 15k                          | 1   |
| R543   | ERD16TJ183   | 18k                          | 1   |
| R544   | ERD16TJ394   | 390k                         | 1   |
| R545   | ERD16TJ184   | 180k                         | 1   |
| R580,581   | ERD16TJ151   | 150                          | 2   |
| R582   | ERD16TJ101   | 100                          | 1   |
| (OTHERS)   |              |                              |     |
| E201   | PQJP4D14Z    | Connector Plug, 4P (CN2,3)   | 2   |
| E202   | PQJP4D53Z    | Connector Plug, 40P (CN1)    | 1   |
| E203   | PQJS12L31Z   | Connector Socket, 12P (J6,7) | 2   |
| E204   | PQJS26R30Z   | Connector Socket, 26P (J4)   | 1   |
| E205   | PQJS2L26Y    | Connector Socket, 2P (J5)    | 1   |
| E206   | PQJS9L31Z    | Connector Socket, 9P (J8)    | 1   |
| E207   | PQJS2L55Z    | Connector Socket, 2P (JN1)   | 1   |
| POWER REGULATOR BOARD PARTS                                    |              |                              |     |
| PCB3   | PQWP361610M1 | Power P.C.Board Ass'y (NLA)  | 1   |
| (ICs)  |              |                              |     |
| IC1  | PQVITA7924   | IC                           | 1   |
| IC2  | PQVIPC79M18F | IC                           | 1   |
| IC3  | PQVITA7812AP | IC                           | 1   |
| IC4  | AN7912T      | IC                           | 1   |
| (TRANSISTORS)  |              |                              |     |
| Q2   | 2SA937       | Transistor (Si)              | 1   |
| Q3   | 2SB834       | Transistor (Si)              | 1   |
| Q4   | 2SC2673      | Transistor (Si)              | 1   |
| Q5   | 2SA881       | Transistor (Si)              | 1   |
| Q6   | 2SB1015      | Transistor (Si)              | 1   |
| Q7   | 2SD1406      | Transistor (Si)              | 1   |
| (DIODES)   |              |                              |     |
| D1,3   | PQVD2B4B41   | Diode (Si)                   | 2   |
| D2   | PQVD3B4B41   | Diode (Si)                   | 1   |
| D10,12,13<br>,21,22  | 1SR35-200    | Diode (Si)                   | 5   |
| D14  | MA4110       | Diode (Si)                   | 1   |

| Ref. No.                | Part No.     | Part Name & Description  | Pcs |
|-------------------------|--------------|--|-----|
| D15-18<br>,23-29        | 1SS131       | Diode (Si)   | 11  |
| D19                     | MA1056       | Diode (Si)   | 1   |
| D20                     | PQVDEK03     | Diode (Si)   | 1   |
| (COMPONENT COMBINATION) |              |  |     |
| CA1                     | PQXF6WB07    | Capacitor Array  | 1   |
| (CAPACITORS)            |              |  |     |
| C1                      | ECET50S103SW | 10000  | 1   |
| C2                      | ECET35S472SW | 4700   | 1   |
| C3                      | ECEA1EU331   | 330  | 1   |
| C4,6                    | ECET35S682SW | 6800   | 2   |
| C5,7                    | ECEA1EU331   | 330  | 2   |
| C8                      | ECET35S222SW | 2200   | 1   |
| C9                      | ECEA1AU221   | 220  | 1   |
| C10                     | ECKD1H103MD  | 0.01   | 1   |
| C11                     | ECEA1AHA101  | 100  | 1   |
| C12                     | ECKD1H102KB  | 0.001  | 1   |
| C13                     | ECEA1HU2R2   | 2.2  | 1   |
| (RESISTORS)             |              |  |     |
| R12                     | ERD16TJ682   | 6.8k   | 1   |
| R13                     | ERD16TJ331   | 330  | 1   |
| R14                     | ERDS1TJ101   | 100  | 1   |
| R15,16                  | ERD16TJ823   | 82k  | 2   |
| R17,18                  | ERD16TJ103   | 10k  | 2   |
| R19,20                  | ERDS1TJ151   | 150  | 2   |
| R21,22                  | PQRD1VJ1R0   | 1  | 2   |
| R23,24                  | ERDS1TJ181   | 180  | 2   |
| R30                     | ERD25TJ153   | 15k  | 1   |
| (OTHERS)                |              |  |     |
| E1                      | XBA1C20NU100 | Fuse (F1-F3)   | 3   |
| E2                      | PQJP4D16Z    | Connector Plug, 4P (CN13)  | 1   |
| E3                      | PQJP7D19Z    | Connector Plug, 7P (CN14)  | 1   |
| E4                      | PQJP7G3Z     | Connector Plug, 7P (CN12)  | 1   |
| E5                      | PQJP9D68Z    | Connector Plug, 9P (CN8)   | 1   |
| E6                      | PQJS7L33Z    | Connector Socket, 7P (JA9)   | 1   |
| POWER SUPPLY PARTS      |              |  |     |
| PCB4                    | PQWP461610M1 | Power P.C.Board Ass'y (NLA)<br>(with/C401-404,ZNR401, L401,<br>E403, E404, E406) | 1   |
| (CAPACITORS)            |              |  |     |
| C401,404                | ECQU1A473MH  | 0.047  | 2   |
| C402,403                | ECKDKC222KB  | 0.0022   | 2   |
| (VARISTOR)              |              |  |     |
| ZNR401                  | ERZC14DK431U | Varistor   | 1   |
| (COIL)                  |              |  |     |
| L401                    | PQLE61       | Coil   | 1   |
| (SWITCH)                |              |  |     |
| SW1                     | EST15704V    | Switch, Power  | 1   |
| (TRANSFORMERS)          |              |  |     |
| T1                      | PQLT5M9M1A   | Power Transformer  | 1   |
| T2                      | PQLT1M9M1A   | Bell Transformer   | 1   |

| Ref. No.         | Part No.     | Part Name & Description        | Pcs |
|------------------|--------------|--------------------------------|-----|
| (OTHERS)         |              |                                |     |
| E400             | PQWAT616M    | AC Power Cord Assembly         | 1   |
| E401             | PQUV36Y      | Power Box Cover                | 1   |
| E402             | PQUV37Y      | Power Box                      | 1   |
| E403             | PQJS7L6Z     | Connector Socket, 7P (J10)     | 1   |
| E404             | PQJP7C1Z     | Connector Plug, 7P (BATT JACK) | 1   |
| E405             | PQMD4012Z    | Bracket, Power Box             | 1   |
| E406             | XBA2F15NU2   | Fuse (F400)                    | 1   |
| E407             | PQQT4181Z    | Label                          | 1   |
| LED BOARD PARTS  |              |                                |     |
| PCB5             | PQWP5T61610M | LED P.C.Board Ass'y (NLA)      | 1   |
| (DIODES)         |              |                                |     |
| D800             | LN220RPH     | LED                            | 1   |
| D801             | LN420YPH     | LED                            | 1   |
| D802             | LN320GPH     | LED                            | 1   |
| (OTHERS)         |              |                                |     |
| E800             | PQJS4L32Z    | Connector Socket, 4P (J6)      | 1   |
| E801             | PQHR402Z     | Spacer, LED                    | 3   |
| JACK BOARD PARTS |              |                                |     |
| PCB6             | PQWP661610M1 | Jack P.C.Board Ass'y (NLA)     | 1   |
| (COILS)          |              |                                |     |
| L501,502         | PQLQZY333J   | Choke Coil                     | 2   |
| L503,505         | PQLQZL2R2K   | Choke Coil                     | 2   |
| L504             | PQLQZL1R0K   | Choke Coil                     | 1   |
| (TRANSFORMERS)   |              |                                |     |
| T501,502         | PQLT2D6A     | Transformer                    | 1   |
| (CAPACITOR)      |              |                                |     |
| C501             | ECFD1E473MD  | 0.047                          | 1   |
| (OTHERS)         |              |                                |     |
| E501             | PQJS4L17Y    | Connector Socket, 4P (J7)      | 1   |
| E502             | PQJJ1E1Y     | Jack, Paging                   | 1   |
| E503             | SJJK8        | Jack, EXT. Music               | 1   |
| SMDR BOARD PARTS |              |                                |     |
| PCB7             | PQWP761610M1 | SMDR P.C.Board Ass'y (NLA)     | 1   |
| (ICs)            |              |                                |     |
| IC600            | PQVIHD75189P | IC                             | 1   |
| IC601            | PQVIHD75188P | IC                             | 1   |
| IC602            | PQVIBU3140   | IC                             | 1   |
| IC603,604,605    | PQVINJM4558D | IC                             | 3   |
| (TRANSISTORS)    |              |                                |     |
| Q600             | DTA143XA     | Transistor (Si)                | 1   |
| Q601,602,603     | DTC124EA     | Transistor (Si)                | 3   |
| Q604             | 2SC2878      | Transistor (Si)                | 1   |
| Q605             | 2SC2021      | Transistor (Si)                | 1   |

| Pcs                  | Ref. No.    | Part Name & Description   | Pcs |
|----------------------|-------------|---------------------------|-----|
| (DIODES)             |             |                           |     |
| D600,601             | 1SS131      | Diode (Si)                | 2   |
| (COILS)              |             |                           |     |
| L600,603             | PQLQZM1R5M  | Choke Coil                | 2   |
| L601,602,604         | PQLQZM2R2M  | Choke Coil                | 3   |
| (CAPACITORS)         |             |                           |     |
| C600-605,614         | ECKD1H102KB | 0.001                     | 6   |
| C603,606,607         | ECKD1H223MD | 0.022                     | 3   |
| C608                 | ECQM1H332JV | 0.0033                    | 1   |
| C609,611,626         | ECQV1H104JZ | 0.1                       | 3   |
| C610                 | ECQM1H682JV | 0.0068                    | 1   |
| C612                 | ECQV1H473JZ | 0.047                     | 1   |
| C613                 | ECQV1H683JZ | 0.068                     | 1   |
| C615                 | ECQM1H222JV | 0.0022                    | 1   |
| C616                 | ECQV1H124JZ | 0.12                      | 1   |
| C617,621             | ECQM1H103JV | 0.01                      | 2   |
| C618                 | ECEA1HU330  | 33                        | 1   |
| C619,620             | ECEA1HU4R7  | 4.7                       | 2   |
| C622,623             | ECEA1HU010  | 1                         | 2   |
| C630                 | ECEA1HU100  | 10                        | 1   |
| C640                 | ECQV1H104JZ | 0.1                       | 1   |
| (RESISTORS)          |             |                           |     |
| R600                 | ERD25TJ561  | 560                       | 1   |
| R601                 | ERD16TJ224  | 220k                      | 1   |
| R602,611             | ERD16TJ273  | 27k                       | 2   |
| R603                 | ERD16TJ124  | 120k                      | 1   |
| R604                 | ERD16TJ393  | 39k                       | 1   |
| R605,606,607,621,623 | ERD16TJ103  | 10k                       | 5   |
| R608,609,610         | ERD16TJ104  | 100K                      | 3   |
| R612,622             | ERD16TJ223  | 22k                       | 2   |
| R613                 | ERD16TJ102  | 1k                        | 1   |
| R614                 | ERD16TJ563  | 56k                       | 1   |
| R615,616             | ERD16TJ123  | 12k                       | 2   |
| R617                 | ERD16TJ222  | 2.2k                      | 1   |
| R618                 | ERD16TJ474  | 470k                      | 1   |
| R619,640             | ERD16TJ472  | 4.7k                      | 2   |
| R620                 | ERD16TJ334  | 330k                      | 1   |
| R630,631,632         | ERD16TJ822  | 8.2k                      | 3   |
| R633                 | ERD16TJ683  | 68k                       | 1   |
| (OTHERS)             |             |                           |     |
| E301                 | PQJP26D69Z  | Connector Plug, 26P (CN4) | 1   |
| E302                 | PQJS25P3Z   | EIA Connector (CN16)      | 1   |